



Excavations at
Tall Jawa, Jordan

Volume 4
The Early Islamic House

P.M. Michèle Daviau

Excavations at Tall Jawa, Jordan

Culture and History of the Ancient Near East

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Excavations at Tall Jawa, Jordan

Volume 4, The Early Islamic House

by

P. M. Michèle Daviau

with contributions by

Martin Beckmann

Debra C. Foran

David Hemsworth

Nola J. Johnson

Margaret A. Judd

Heather Siemens

Alan Walmsley



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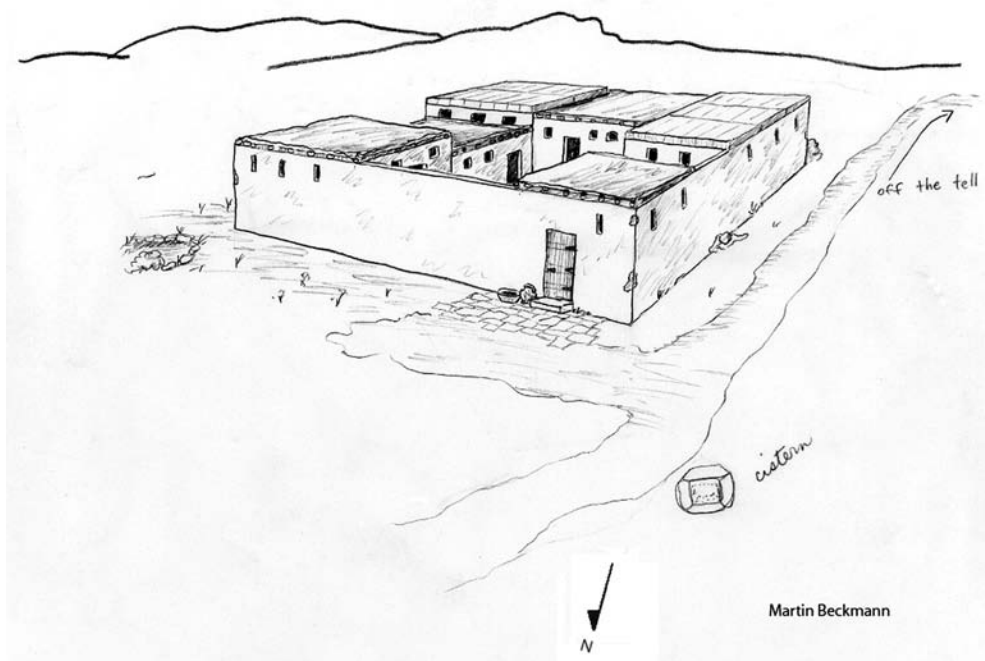
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Frontispiece: Building 600 at Tall Jawa; possible reconstruction,
Martin Beckmann (1995)

This book is dedicated to the memory of Fr. Michele Piccirillo, OFM, a friend and colleague whose archaeological research and publications enriched us all and whose commitment to the preservation of the Christian heritage of Jordan resulted in a lasting legacy.

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PREFACE

Archaeological excavation is a challenge; the unexpected is always to be expected. Such was the case with the excavation of the site of Tall Jawa, south of 'Amman. What should have been an Iron Age site with evidence for earlier occupation, especially in the Early Bronze Age, turned out to be an Iron Age site with later settlement during the Byzantine and Early Islamic periods. The discovery of a rich ceramic corpus of early Islamic pottery in the collapse of a building adjacent to a late Iron Age house (B800) was a great stimulus to expand my areas of interest and investigate the Early Islamic remains in detail. We were fortunate that one complete structure was available on the land of Mr. Hamad Tafileh for excavation during five successive seasons (1991–1995).

It was thanks to the support and encouragement of the Department of Antiquities of Jordan, especially Dr. Safwan Tell, Director General of Antiquities in 1991–1994, that our excavation programme was able to become independent from the Madaba Plains Project during the 1992 field season. The Tall Jawa Project developed its own research strategy, working on both the Iron Age and Early Islamic remains, and training North American, European, and Jordanian students in our field methods and recording techniques. A special thanks is extended to Nazmieh Rida Tawfiq, Department of Antiquities representative to the Tall Jawa Project, who generously shared her expertise and vast experience with the students and volunteers on our team, thus contributing enormously to the education of us all. The support of the Department of Antiquities was continued by Dr. Ghazi Bisheh, Director General of Antiquities in 1995, and by Adeeb Abu Shumais, representative of the Department of Antiquities during our final field season.

Beginning with the 1991 season, preliminary reports that included a summary of our work on the Early Islamic building appeared in *Echos du monde classique/Classical Views* (Daviau 1992a), as well as in the *Annual of the Department of Antiquities of Jordan* (Daviau 1992b, 1993, 1994, 1996), with the exception of the final field season in 1995.¹ During

¹ Detailed annual reports prepared by Daviau for the 1991–1995 seasons were submitted to the Department of Antiquities of Jordan, along with a set of photographs.

these five years of research and excavation, the Tall Jawa Project was affiliated with the American Schools of Oriental Research, first as part of the Madaba Plains Project and then, following the 1992 season, as the Tall Jawa Excavation Project. The author wishes to express her deep appreciation for the support and expression of confidence in the continued success of the Tall Jawa Project by the MPP directors, L. T. Geraty, L. G. Herr, Ø. S. LaBianca, R. W. Younker, and D. R. Clark.

Many people contributed to the exacting tasks of excavation, recording, registration, and study of the material culture of Tall Jawa. I want to thank all of our team members for their generosity of spirit and hard work that enabled us to bring to light Building 600 at Tall Jawa. Each one made a significant contribution and shared many more tasks than is mentioned in the lists of participants. Thanks are due also to L. Cowell for her work in experimental archaeology, replicating features related to ceramic technology and for the registration of potter's marks and sherds with evidence for the potter's craft (1991–1995), to B. Silver, who was pottery registrar for four seasons (1991–1993, 1995), to Robert Hutson (1991, 1992) and Romeo Levesque (1994, 1995) for their work as excavators and technical assistants, and to E. Cowell for years of service as camp manager.

The Tall Jawa Excavation Project also benefited from the generous interest and scholarly opinions of numerous scholars in residence at the American Center of Oriental Research in 'Amman, where the team lived during the 1991–1995 seasons. Special thanks to the Director, Dr. Pierre Bikai, and to Dr. Patricia M. Bikai for their support and scholarly advice. Support, housing, vehicles, and dark room facilities were also provided by William Lancaster (then director) and Felicity Lancaster of the British Institute at 'Amman for Archaeology and History (now CBRL). Our thanks also to the men who served as Canadian Ambassadors to Jordan, especially the Honourable Michael Bell. He supported our work with great enthusiasm and offered his help in time of need.

Necessary funding to support overseas training of students and supervisors was provided on an annual basis by Wilfrid Laurier University and supplemented the fees paid by volunteers. Donations to the project by P.-E. Dion and R. Levesque are deeply appreciated.

The research presented here is the work of many team members, some of whom are contributors in their own right, such as Margaret A. Judd, who served as object registrar and field supervisor in Field E (Iron Age). Thanks are due to N. J. Johnson for her work on the plaster

and inscribed objects and lamps, Alan Walmsley for his study of the coin hoard, and Martin Beckmann for his preliminary study of the mould-made lamps. Other scholars have assisted the author by sharing their expertise; I would like to thank Alistair Northedge, Mohammed Najjar, Pamela Watson, and Estelle Villeneuve. C. S. Kretz prepared the regional map, while colleagues in the Department of Geography provided information concerning geological samples and assisted our team with the loan of equipment. The multimedia programmes are the brain child of David Hemsworth who did the programming along with Brendon Paul making it possible to present in colour hundreds of images of glass, pottery, ceramic lamps, objects, architectural features, and the site itself.

My deepest appreciation goes to the field supervisors and their square supervisors, who wrote seasonal reports in the field describing and interpreting the archaeological record. Without their conscientious work, the material presented here would be only a skeleton of the remains uncovered during excavation. A special thanks in this regard to Adele Tempest, and to co-supervisors Serge Patrice Thibodeau and Martin Beckmann, who all worked in Building 600 and contributed insights of great value for the interpretation of the archaeological record. The principal field photographer during the 1993 and 1994 seasons was Timothy Hellum of Toronto, and these photos were scanned and entered into the database by Helen Moore.

Object illustrations were drawn by Adele Tempest, Debra Foran, Julie Witmer, as well as other team members and finalized by Rachel Warriner. Pottery was washed and drawn by students enrolled in AR 326, a course in Byzantine and Early Islamic Archaeology at Wilfrid Laurier University, and vessels were reconstructed in the Near Eastern laboratory by Joyce Palmer and her student assistants. Of special note are Catharine Poehlman and Christena Hurley who drew hundreds of ceramic sherds, and Craig Ramsomair who scanned and painted the resulting digital drawings for inclusion on the interactive DVD. Lamp designs were drawn principally by Martin Beckmann, Shawn Kretz and Jacqueline McDermid, while the bases were drawn by Peter Epler. Elaine Kirby(†) and Dr. Bernard Haberstroh, MD photographed the painted plaster, coins, lamps, and pots to show details of forming techniques and design. Extra photos are on the DVD. For all of this work, Wilfrid Laurier University provided lab space; equipment; archival facilities for the storage of original field notebooks and drawings; storage space for pottery and objects; computers and scanners; and Ontario Work Study funding to assist students working on these

materials. The author gratefully acknowledges that financial support for this research was received from a grant partly funded by WLU Operating funds, and by the SSHRC General Research Grant awarded to Wilfrid Laurier University.

This book is one of five volumes which present the results of all six seasons of excavation at Tall Jawa (1989, 1991–1995). The evidence for occupation during the Iron Age (*ca.* 1100–600 BC) is presented in Volume I, which describes the architecture and stratigraphy of the Iron Age buildings (Daviau 2003), Volume II consists of a functional and typological study of the Iron Age artefacts (Daviau 2002), and Volume III (in preparation) presents a functional and formal typology of the ceramic corpus. The fifth volume will include the results of the regional survey surrounding Tall Jawa, the excavation and documentation of the rock-cut installations south and west of the *tall* (several of which are Byzantine–Early Islamic period in date), the faunal remains, the excavation of a Roman period tomb, and the ethnographic study of early 20th century houses now abandoned in the modern village of Jawa.

Although these volumes are not intended to be exhaustive, there are specialist reports in each volume. The material presented here, in Volume IV, consists of the final report on the Early Islamic house (B600) in Field D, including details of the architecture, decoration (painted plaster and mosaic floors), glass vessels, pottery, and artefacts. Problems of stratigraphy, along with a synthesis of the settlement history and chronology, are an attempt to put this discovery into a broader cultural context. This work is supplemented by a multimedia information programme on DVD, which includes aerial photos, relevant databases and associated illustrations of both Building 600 (field photos and plans) and of its contents (glass, ceramic, painted plaster and artefact databases, photos and drawings). As well, there is a complete locus list.

I am grateful to Prof. Paul-Eugène Dion who read the interim version of this manuscript and to Dr. Debra Foran who read the final version. Their insights and careful notation were a source of guidance and help in linking together the components of this report. Many scholars have both contributed to my enrichment and added greatly to my knowledge of the Late Antique period. It is my hope that this report contributes to a better understanding of the rich history and culture of Jordan.

EXCAVATION AND SURVEY TEAM MEMBERS

1991 (JUNE 18–AUGUST 6)

Lawrence T. Geraty, senior project director, Atlantic Union College,
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Željko Gregor, Berrien Springs, MI, USA

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Pottery registrar:
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Ceramic technologist:
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Manal Natour, 'Amman, Jordan

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Timothy Hellum, Toronto, ON

1995 (MAY 28–JULY 27)

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Ceramic technologist:

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Photographers:

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Philip Silver, Stratford, ON

Camp manager:

Edward Cowell, Waterloo, ON

Department of Antiquities representatives:

Nazmieh Rida Tawfiq (1991–1994), and Adeb Abu Shumais (1995)

*All team members were from Canada, unless otherwise indicated.

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PART ONE

OVERVIEW

CHAPTER ONE

TALL JAWA: THE SITE AND ITS SETTING

P. M. Michèle Daviau

INTRODUCTION

Location

During the transition from Byzantine to Umayyad control in central Transjordan, the site of Tall Jawa was re-occupied after a 1200 year gap in occupation. The remains of this settlement (Tell Ġâwa; Palestine Grid, 238.2E/140.8N)¹ are located on a small mound in the Balqā³ region, west-northwest of the modern village of Jawa and 2.2 km northeast of al-Yadudah (Fig. 1.1). In the broader context, Tall Jawa lies *ca.* 10.9 km south of ‘Amman, 12.5 km northeast of Ḥisban, 12.5 km north of al-Qaṣṭal² and 15 km northwest of al-Muwaqqar. Tall Jawa, identified by Conder (Jāwah, 1889:109) as a large ruin, is located on a natural hill overlooking the Wādī al-Hinu/Wādī Um al-Kudsh to the west and the Wādī Hinu al-Marashida to the east, both of which drain to the south (Schnurrenberger 2003). Although there is no spring in the immediate vicinity, exposed bedrock to the south and west of the mound is riddled with rock cut cisterns (Battenfield, forthcoming/b). These installations may have been used initially during the Iron Age and/or the Byzantine period (Daviau, ed. forthcoming) and been a feature that made the site attractive to later settlers.

The other obvious geographic factor which makes Tall Jawa attractive as a settlement site is its strategic location; the *tall* itself rises 5.00–10.00 m

¹ The full reference in JADIS includes the following coordinates: UTME 7773; UTMN 35686; PGE 238.200; PGN 140.800; JADIS Site #2314.048 (Palumbo 1994:2.137). Changes in orthography for place names, established by the Royal Geographical Service since 1994, are gradually being adopted. When excavations began at Tall Jawa, this change had not yet taken place and the older orthography is reflected in published articles and preliminary reports.

² In the report of their survey of Transjordan, Brünnow and von Domaszewski (1904:I:179) mention that they passed by the site of Ġâwa on their way from al-Qaṣṭal to ‘Amman in April 1897.

above the surrounding plain and marks the first rise of the Balqā' hills between al-Qaṣṭal and 'Amman. This position allows for a view of the Madaba plain to the southwest, and a 270° view to the south, east, and north. This view is not obstructed between Tall Jawa and the outskirts of modern West 'Amman (Abdoun). Nor is there any visible barrier between Tall Jawa and Queen Alia International Airport to the south. From this vantage point, the site overlooks rich farmland on three sides. Most important is the plain that extends to the southwest toward Madaba; also of value for food production and pasturage are the fields that reach as far east as Saḥab.

The crest of the mound is crowned by an Iron Age casemate wall system, which encompasses an area of approximately 2.0 ha (see aerial view on DVD). The Iron Age settlement probably filled the entire area within the walls, although this does not seem to be the case during the Umayyad period. There is ceramic evidence for an earlier, Byzantine period use of the mound and for use of the exposed bedrock to the south (Field M), where a series of bedrock installations, including a wine treading floor and storage cave (Battenfield, forthcoming/a), also yielded Byzantine material (Daviau, ed. forthcoming). Whether there was a major building at the site, such as a Byzantine period church, was not determined during excavation. Only one structure was excavated (Building 600), a house which yielded Late Byzantine–Early Islamic style ceramic vessels.

The Ancient Name

Travellers and explorers who visited Tall Jawa, such as Alois Musil (in 1898–1902), Albrecht Alt (in 1932) and Nelson Glueck (in 1933–1937), recognized its importance as an ancient site. Musil (1907:218) suggested that the village of Khirbat Nēfa'a to the northeast preserved the name of biblical Mepha'ath (Jos. 13:18, Jer. 48:21; Eusebius, *Onomastica Sacra*, Klostermann 1966:128–129), as well as the name of the Roman camp *Kastron Mefaa* (*Notitia Dignitatum*; Böcking 1839–1853:82; 362–363). Because Tall Jawa was the closest *tall* to Khirbat Nēfa'a, Musil (1907:352) thought the mound was the location of the biblical site as well as of the later Roman period fort.³ This identification was in support

³ The geography of the immediate vicinity of Tall Jawa, in relation to Khirbat Nēfa'a, is shown most clearly in the study of the Joshua texts by Mittmann (1995: abb. 2).

of the suggestion by Clermont-Ganneau (1901) that the Levitical city of Mepha'ath⁴ should not be identified with Umm al-Rasas, because there was no association of the ancient name with a modern site nearby. Clermont-Ganneau reiterated his identification of Tall Jawa in 1902 and it was adopted by Alt (1933:28) following his visit to the site in 1932. What was forgotten in this discussion is the fact that neither the *Onomasticon* nor the *Notitia Dignitatem* provides any geographical information. However, there is the evidence of St. Jerome, who prepared the Latin translation of the *Onomasticon* in ca. AD 390, in which he mentions that there was a *praesidium* of Roman soldiers stationed at Mefa'ath, because of its isolated location (Klostermann 1966:129). This is indeed the case at Umm al-Rasas, where there is a large Roman fortress, measuring 139.00 × 158.00 m (Bujard and Joguín 2001:241; figs. 1, 2), as well as a Late Byzantine mosaic that gives pride of place to the depiction of the town of *Kastron Mefaa* (Piccirillo 1988:213, 216). On the other hand, there was no architectural evidence for occupation at Tall Jawa between the Iron Age and the Late Byzantine–Early Islamic period, nor is there any evidence for a Roman fortress in the area. Only a few Early Roman–Nabataean sherds were recovered from topsoil layers on the south slope of the mound.⁵

HISTORY OF EXPLORATION

Survey Evidence

Before excavation began at Tall Jawa, the history of settlement was known only through the observations of explorers engaged in surface survey. The results of one such survey by Nelson Glueck (1934) produced pottery that he assigned to the Iron Age and the Early Bronze Age. Although he did not collect any Late Roman or Byzantine period

However, its position does not correspond to Musil's report that Nēfā'a was on the north slope of Tall Jawa; according to Mittmann, the village lies to the northeast of Tall Jawa.

⁴ This debate continues to exercise scholars; see Dearman (1989a, 1989b), Elitzur (1989), Piccirillo (1990), Younker and Daviau (1993), and Kallai (1993).

⁵ There is limited evidence for Roman period activity in the area of Jawa village. This consists primarily of a Roman period tomb with fourteen loculi that was excavated by the Tall Jawa team in 1994 and 1995 (Daviau, ed., in preparation).

pottery,⁶ he did see some glazed sherds which he identified simply as “Arabic”.⁷ Only a few sherds with Byzantine characteristics and one sherd dated to the Umayyad period were identified in the corpus of 245 diagnostic sherds collected by Boling (1989:144) for the Madaba Plains Project Regional Survey in 1984.⁸ The fortified mound, viewed from the air in 1983, is surrounded by a heavy outer wall visible from the northeast (Fig. 1.2). Inside this fortification wall, Boling did make note of the remains of “large structures and depressions of buildings collapsed inward” (1989:144). However, what was of interest to the Madaba Plains Project directors at that time was the strategic position of Tall Jawa and the large number of Iron Age II sherds in the surface material. In an attempt to better understand the Iron Age settlement at Tall al-‘Umayri, the principal site under excavation by the Madaba Plains Project in 1989, Tall Jawa was assigned to the Hinterland Excavations Director, R. W. Younker. P. M. M. Daviau was offered the opportunity to work at Tall Jawa as Field Supervisor.

An initial season of excavation (1989) was devoted to an investigation of the Iron Age fortification walls in a 24.00 m long probe on the south slope of the tell. The excavated area was designated as Field A, with 6.00 × 6.00 m squares running south to north (A1–A4) and west to east (A1–A11; Fig. 1.3). During this same season, the Tall al-‘Umayri Regional Survey, under the direction of J. R. Battenfield, identified the collapsed debris of Building 600 as Feature #5 at Madaba Plains Project Site 29. In 1991, excavation of the Iron Age remains was expanded to include Field B (west of Field A) and Field C (east and south of Field A). The visible remains of at least 20 buildings, collapsed on the surface of the *tall* to the north and east of Field C (in Fields F, G, and H), clearly indicated that the site had been re-occupied some time after the destruction of the Iron Age town. These collapsed buildings were constructed of unhewn limestone and chert boulders along with some worked architectural fragments. The style of drafted masonry, especially

⁶ Glueck made no mention of the visits of earlier explorers to the site of Tall Jawa, nor to Abel’s judgment that the building remains visible on the summit testify to a settlement adjacent to the military establishment at Khirbat Nēfā’a, called Mepha’ath in the *Onomasticon* (Abel 1967:188).

⁷ The pottery from Glueck’s survey in Transjordan has not yet been published in full, with only a few sherds appearing in his published reports. This collection cannot now be located by the Israel Antiquities Authority (personal communication, E. van der Steen, June 2005).

⁸ Boling (1989:143) identified Tall Jawa as MPP Regional Survey Site 29.

of limestone doorjambs, and the presence of Byzantine period sherds in the corpus of survey pottery, suggested a Late Antique date for the reuse of the *tall*. The largest and most accessible of the collapsed structures (Feature #5, B600) was located near the centre of the mound in the northern part of Field C (Fig. 1.3). Because of this structure's unique characteristics, a new field (Field D) was laid out in 1991 to encompass this building. Field D cut into Field C and replaced Squares C48–C98, C49–99, and C50–C100; Squares D1–D51 are immediately north of Squares C47–C97 (Figs. 1.4; 2.1).⁹

Modern property walls surround Field D on the south and east, and run through the middle of the field (in Squares D25–D55) to the north of Building 600. Here, the ground is covered with scattered tesserae (545+; Table 1A), forming a distribution pattern that appears to mark the position of a public building, possibly a Byzantine period church. Four parallel walls of this structure are just visible at ground level, and appear to run east-west for at least 16.70+ m. Although this area could not be excavated at the time,¹⁰ the large number of tesserae on the surface¹¹ and the dominance of Byzantine ceramic sherds suggest that this building may have been the source of stone carved architectural fragments bearing crosses that were found in secondary use in Building 600 (see Excursus, below).

In contrast to the Iron Age buildings at the site and to the “tesserae building”, the outer walls of Building 600 are preserved above ground level, and clearly delimit the perimeter of a large structure filled with collapsed debris. Most intriguing at the time of discovery was a central depression that had been disturbed in modern times. In spite of this recent disturbance, the depression itself was clearly the result of ancient

⁹ The Fields and Squares serve as a working grid. Squares are numbered south to north (D1–D10) and west to east (D1–D91). Field D was laid out over Building 600 in such a way that the entire building would fall into a single Field. The location of Field D in this area truncated Field C, which lies to the south, but greatly simplified recording and reporting procedures (see Chapter 2).

¹⁰ Only Building 600 was within the area owned by Mr. Hamad Talafieh and was therefore available for excavation by the Tall Jawa Project. More recently, Tall Jawa has been designated as an antiquities site by the Department of Antiquities of Jordan.

¹¹ Several sites located by the Hesban survey (Sites 73, 100, 103, 108(?), 110, 111, 138) can be identified as possible church sites due to the presence of architectural elements and mosaic pavements and tesserae on the surface or *in situ* (Ibach 1987:20, 23, 24, 25, 187); see also the excavation of a mosaic floor at Masuh (Site 100) by Van Elderen (1970; Ibach 1987:187).

collapse and is similar to the pattern of collapse visible in other structures along the east and north sides of the mound (Fields G, H).

A rock-cut cistern (D15:2)¹² located to the northwest of Building 600 was emptied in modern times. The resulting dump of soil (D14:1) and a large amount of broken pottery was piled against the west wall of Building 600. Large stone blocks cover the mouth of the cistern, which was first investigated in 1992, and was found to contain a modern mortar shell. Following the removal of the shell, this cistern was revisited, photographed and described in detail (Daviau 2003:370–372). The presence of a large number of Iron Age sherds in the dump suggests that this cistern was used initially in association with the Iron Age structure in Field D (Building 700; Daviau 2003), although it is also likely that the cistern was reused during the Late Byzantine–Early Islamic period.

Excavation Strategy

Excavation began in 1991 at the southwest corner of Building 600 (Squares D2–D3) and extended north along the west wall (D2–D3) and east along the south wall in Squares D2–D22. The goal of this first season was to identify the building and its principal occupation periods. Glass shards, tesserae, and a mould-made lamp sherd (TJ 234) were discovered in the soil layers (D2:2, 3) outside the west wall of B600. Within the structure itself, the discovery of an intact channel nozzle lamp, dating to the Early Islamic period, made it apparent that Building 600 was an important structure worthy of continued attention and complete exposure. In 1992, a strategy was designed that involved continued excavation in the rooms around the south and east sides of the central depression. It was not yet clear that the floor level of the central room would be at a much lower level than the side rooms. It was only in 1993 that we began to excavate the central room. During this season, the goal was to reach floor level in order to understand the function of this architectural space and identify the overall building plan. Also in support of this goal, additional excavation below floor level was undertaken in eastern Room 605, previously identified as a kitchen. It was only with this strategy that we discovered the pres-

¹² Loci are designated by the letter of their field, the number of the square: locus number (D15:2).

ence of *in situ* Iron Age debris, apparently left in place when the new inhabitants remodelled a building (B700) originally constructed during the late Iron Age II period. This evidence appeared to be in contrast with the results in Central Hall 607, which was paved with a mosaic floor on the lower level.

It then became imperative for us to resume our work in Room 606 in the northeast corner of Building 600, where a pair of arch springers had been exposed against the southern wall in 1992. In 1994, excavation reached floor level in Room 606 and revealed an arched room with painted wall plaster and a mosaic carpet. At the same time, a deep probe was dug in Room 609 on the west to investigate lower-storey debris layers. Here too, only Iron Age remains were found in the 2.00 m of debris between the upper floor level and bedrock. During both the 1993 and 1994 seasons, we undertook careful documentation and labelling of all architectural elements and decorative materials, such as painted plaster, as well as the quantification of all mosaic tesserae and mosaic floor fragments.

During the final season (1995) at Tall Jawa, the strategy was to return to each upper storey room and investigate the underlying remains. To this end, deep probes were dug in Rooms 601, R602, and R604 on the south. In the northwest, more excavation was undertaken in upper-storey Room 608 and in the lower-storey room (R616) beneath it to complete the exposure of the staircase which gave access to the lower-storey rooms, especially the central court/hall (R607). Since we knew that this would be the last season of excavation at Tall Jawa, certain rooms were partially back-filled, in order to protect the ancient remains and render the site less dangerous for children and livestock. However, much more could be done in other excavation areas to the east and north of Building 600 to investigate existing remains of the Byzantine–Early Islamic settlement.

EXCURSUS

During the 1995 season, a surface survey of the area encompassed by Squares D7–D27 and D8–D28 identified two north-south wall lines, and four east-west wall lines in an area located north of Building 600.¹³

¹³ The survey was conducted by S. Thibodeau.

At surface level, two of these walls appear to be *ca.* 1.20 m thick, possibly exterior building walls. The survey area measured 16.70 m east-west \times 12.50 m north-south and included two relatively shallow depressions, each with a concentration of tesserae. The western depression (D8–D18) was circular in shape and measured 2.00 \times 2.50 m, while the eastern depression (D18–28) was oval and considerably larger, 4.00 \times 4.20 m.¹⁴

The survey area in Field D was divided into four surface loci for control, and pottery and tesserae were collected from each location. The ceramic finds were few; in five pottery pails, there were 11 diagnostics out of 126 sherds. The reading of this material was Iron II, Byzantine, Late Byzantine, and Umayyad. Tesserae were counted and classified by S. Thibodeau on the basis of size and colour. These tesserae were of white, gray, and pink limestone. Small and medium size tesserae were dominant, and certain tesserae retained fragments of plaster.

Table 1A. Tesserae Registration for TJ Field D Surface Survey (1995).

Sample #	Reg. #	Locus	Small	Medium	Large	Total
TJ95-30	T-1	1			2	2
	T-2		3			3
TJ95-31		2	4	9	6	19
TJ95-32		3	132	319	23	474
TJ95-33		4		3	4	7
TJ95-34		random	7	29	4	40
Total			146	360	39	545

¹⁴ The shape of the western depression suggests deliberate excavation, although the depression is shallow. The northern border of the eastern depression extended slightly into Square D29.



Figure 1.1. Map of Palestine with sites in the region of Tall Jawa.



Figure 1.2. Aerial photo of Tall Jawa (vertical arrow) and modern village of Jawa, centre (1983); courtesy of Madaba Plains Project Archive.



Figure 1.3. Collapsed wall stones during first season of excavation.

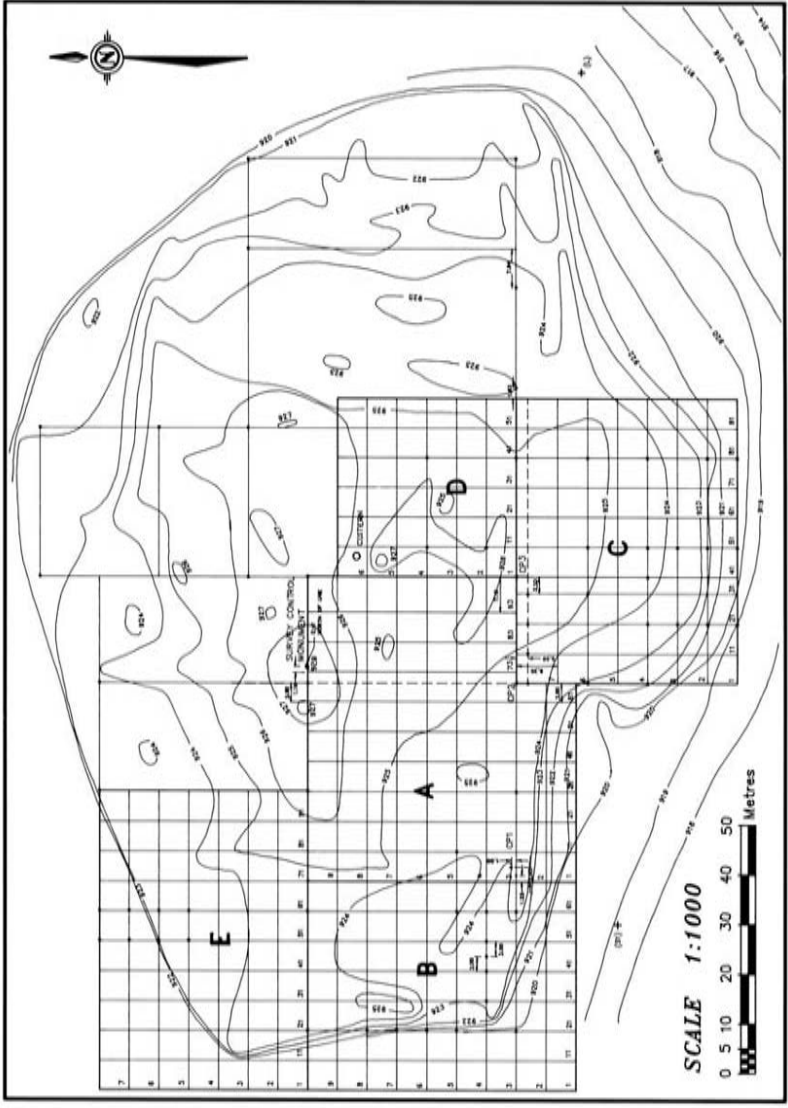


Figure 1.4. Topographical map (G. Johnson); working grid showing fields and squares (R. Force).

CHAPTER TWO

RESEARCH STRATEGY AND RECORDING TECHNIQUES

P. M. Michèle Daviau

INTRODUCTION

Two research goals were of primary importance in the excavation of Building 600; first, the full exposure of this structure in order to understand its plan, internal room arrangement, and function, and secondly, the determination of the stratigraphic relationship of this structure to the earlier Iron Age occupation at the site. The pattern of collapse in Building 600 made it difficult to grasp the plan of the building prior to excavation. Rockfall covered the rooms on the west, south, and east sides, and filled a large central depression. This depression had been disturbed repeatedly in modern times by local people in their attempt to investigate this ruin. Visible in the rockfall above the western rooms were two stone architectural elements, a doorframe bearing an inscription in Arabic and a doorframe with several locking holes; both features added to the complexity of initial identification and dating of this structure. The boulder-and-chink construction of the exterior walls of B600 that resembled the building techniques in the Iron Age buildings exposed during the first excavation season (1989) also made it difficult to assign a date to this structure prior to excavation.

RESEARCH STRATEGY AND EXCAVATION METHODS

It was decided to excavate Building 600 using the same methods as those employed in Fields A, B and C, where Iron Age buildings were preserved just below top soil. This meant that Field D would have an excavation grid of 6.00 × 6.00 m squares (Fig. 2.1),¹ with Squares

¹ Abbas Khammash, Technical Survey Studies Office, 'Amman, Jordan, established the control points for Fields C-west and D in 1991. Control Point 2 (924.462 m asl) marks the western edge of Field C; it is located 3.80 m east of the east balk of Square A53 (in A63), and 2.30 m north of the northwest corner of C7; Control Point 3

D1–D10 running south to north and Squares D1–D91 running west to east. Within each square, the balks were set on the north and west sides, rather than on the north and east, which was the system of the Madaba Plains Project.² This working grid facilitated exposure of the exterior wall on the west during the first season and was then used in following seasons, unless the line of a wall or major feature fell in the balk. As much as possible, the section of each balk of every square was drawn at the end of the season. Individual plans were drawn for each locus, with top and bottom elevations, artefacts, and concentrations of pottery or glass *in situ* plotted on the plan.

The goal was to excavate the building both horizontally and vertically. After documentation, balks were removed in order to expose complete rooms and uncover all of their architectural features and material culture components. This goal was achieved for the early Islamic period remains (Stratum III). However, deep probes below the upper-storey rooms revealed the stratigraphic history of this two-storey house, which had been built originally on bedrock and used during the late Iron Age II (Building 700, Stratum VII, 750–600 BC). Only certain areas, where Iron Age material was still in place, were excavated completely (Daviau 2003:343–370).³ When Building 700 was destroyed and abandoned, the upper storey rooms and their contents collapsed into the lower rooms, filling them completely. Over time, the site was completely buried by wind-blown soil and was not immediately resettled. Only in the late Byzantine–Early Islamic period were the walls of this house chosen as the foundations for a new structure. Following its use in the early Islamic period, Building 600 was again abandoned and remained a ruin until the investigation of the *tall* by the Tall Jawa Project in the late 20th century.

(926.202 m asl) marks the southwest corner of D1; it is located due east of CP 2 and 3.33 m east of the east balk of C27. Thus the south balk of Field D (Squares D1–D51) is located north of Squares C47–C97 (each of the northern squares in Field C measured 8.30 m north-south). These points were linked to Field A by Control Point 1 (925.003 m asl), located in Square A3 on the inner casemate wall. The west side of Field D (Squares D1–D3) was in line with the east balks of Squares C31–C37 and of expanded Squares A93 and A94, forming a north-south section.

² This change was due to the position of Building 600 and was not used in other excavation fields, unless there was a specific need.

³ Deep probes revealed 2.00 m of collapsed upper-storey Iron Age debris left in place above the lower-storey surface remains of certain rooms. The debris in these rooms had not been removed by the new settlers; instead, the debris served as support for rooms built above the debris.

RECORDING SYSTEM

The Madaba Plains Project recording system was used during the first season (1991) of excavation in Field D, but the Tall Jawa Project subsequently expanded the system to better document the various features of a Late Antique period building. However, the basic excavation units remain the same; loci include all soil and debris layers, walls, features and installations. Component parts of complex installations and of burials each received individual locus numbers. Locus numbers are identified with the full field+square designation along with an individual locus number separated by a colon (D13:36).⁴ Because certain architectural features extend beyond the limits of one square, they would be recorded in each square with their distinct locus number. At the time of analysis and description, new numbers for such features were assigned to streamline the system. For example, in this text each wall is described using its wall number (W6003), which is equivalent to all locus numbers which may have been assigned during excavation.⁵ For the most part, these numbers are keyed to the room and building numbers; for Field D, there were two series of numbers assigned to architectural units, one series to represent the Iron Age and the other for the early Islamic house. Although only a few numbers in the range assigned for each stratum were used, this numbering system of walls, rooms and buildings allowed for easier report writing during each field season. In this text, the *siglum* W, R, or B is attached to the number (for example, W6005), unless the full word is used immediately before the number (Wall 6005, Room 604, Building 600; Table 2A).

Table 2A. Range of Room, Building, and Wall Numbers.

Field	Room Numbers	Building Numbers	Wall Numbers
D (Byz-Islamic)	B600–699	W600–699	R6000–6999
D (Iron Age)	R700–799	B700–799	W7000–7999

⁴ Beginning in 1991, a cleanup locus, assigned the *siglum* 0.5, was the first locus in each square. There is no real depth to this locus, with the result that topsoil is represented by Locus 1.

⁵ The list of loci, including a verbal description, Munsell colour code, and relative position, along with a list of wall numbers and their equivalent locus numbers are given on the DVD-ROM. Wall designations are also included in the text.

The descriptions of wall construction and of rockfall from the walls, both in the text and in the running list of loci, is very important for understanding the stone architecture of this house. Because the sizes for wall stones are listed on the locus sheet and are referred to in the following discussion, they are repeated here.

Table 2B. Sizes of Stones in Masonry.

Wall Stones	Cobble size	0.06–0.25 m
	Small boulder	0.25–0.50 m
	Medium boulder	0.50–0.75 m
	Large boulder	0.75–1.00 m
	Very large boulder	1.00+ m
Chinkstones	Pebble size	0.002–0.06 m
	Cobble size	0.06–0.25 m

Fill stones are given the same sizes as the wall stones.

Material Culture Registration

Pottery: The Tall Jawa Project retained the recording system of the Madaba Plains Project for the registration of ceramic sherds. Diagnostic sherds, such as rims, bases, handles, and sherds that are painted, incised or reflect special surface treatment were each given a registration number that includes the Field+Square.Pail.Item number (D2.25.1), with each number separated by a period. This initial registration was done in the field on a daily basis. In addition, after the first season, an attempt was made to save all pottery in loci immediately above the floors, as well as all body sherds that appeared to mend. In order to indicate a particular vessel, each partially reconstructed pot was subsequently assigned a vessel number (Table 2C), which is linked in the pottery database to the sherd with the lowest registration number in the group of mendable sherds (for example, V655=D12.13.4 [+D31.43.1+D32.48.1]). The record for sherd D12.13.4 serves as the control; data in the control record is complete and is linked to the image of the vessel on the DVD-ROM. In the database “mends with” column, the next highest number of the group of mendable sherds is given, and in the comment column, the count is given for each vessel indicating the number of its registered sherds (see Chapter 8).

Table 2C. Range of Vessel and Lamp Numbers.

Field	Vessel Numbers	Lamp Numbers
D (Byz-Islamic)	V600–699, 1500–1599	V1600–V1699
D (Iron Age)	V700–750	

Objects and Samples: Objects and samples were given running numbers in the range of TJ 1–2238, with Field+Square.Pail.Object Number, for example D23.16.1005.⁶ Since object numbers never repeat, an individual item is on occasion referred to simply by the last number in this sequence (e. g., Ostrakon TJ 359). In view of the serious disturbance of debris layers throughout the building and the presence of a large number of Iron Age objects from Building 700, it was difficult to determine in the field the possible reuse of these objects by the inhabitants of Building 600. As a result, many of these finds were described and published in association with similar objects from secure Iron Age contexts (Daviau 2002). Certain objects, such as reworked sherds formed from Iron Age pots were numbered in the range of 101–499; these are distinguished from object numbers by the addition of the year (92/108). Sherds bearing potter's marks were numbered with their year in the range of 500–799 (93/508), and sherds that showed evidence of technological change or a unique aspects of the potter's craft (mend holes, incised decoration, etc.) were registered in the range of 800–999 (94/814). All reworked sherds were published with the Iron Age artefacts (Daviau 2002), although later reuse, especially of spindle whorls, cannot be ruled out.

The pottery pail number links all pottery, artefacts, samples, and bio-data with the locus. While the locus sheets include areas for recording the registration number of each object, as well as the reading for each pail of ceramic sherds, there is only one line to record the number of tesserae or of glass fragments in a given locus. Therefore, it was deemed useful to design additional registration sheets for these finds, in order to identify examples that were diagnostic. Because such a registration

⁶ The Madaba Plains Project system was not used after the 1989 season. Beginning in 1991, a new system was adopted for all objects from Tall Jawa (for details, see Daviau 2002:20–22); object registration began with number TJ 101. The Iron Age artefacts from 1989 were subsequently renumbered in the range of TJ 1–100+TJ 250–299.

system was not available in 1991 and 1992, many of these items were registered as “objects”. In subsequent seasons, all glass fragments, loose tesserae, mosaic fragments consisting of several attached tesserae, and plaster fragments were registered in a new recording system designed by the Tall Jawa Project (see Chapters 4, 14). Concentrations of glass shards were assigned a sample number and within that sample, each diagnostic shard (rim, handle, body shard with moulded relief, and base) was given its own individual registration number. Individual tesserae were counted and recorded on their locus sheets; secondly, the tesserae in each pottery pail were assigned a sample number (95/1=year/sample #). If a tessera within the sample group was a colour other than white, it would receive an individual tessera registration number. The cubes were also measured in order to determine their relative sizes (small, medium, and large) and the total number within each group was counted. Mosaic fragments were registered on separate registration sheets using a similar system. Individual registration systems were also designed for wall plaster, painted wall plaster, roof tiles, floor tiles, wood and charcoal, geological samples, faunal material, soil, and flotation samples.⁷

USING THIS REPORT

In this report, the stratigraphic history of the settlement in Field D is described,⁸ beginning with Building 600 (Chapter 3) and continuing with a brief discussion of associated installations. Chapters 4–6 present reports on particular architectural features. This is followed by the skeletal analysis of a group burial recovered inside the building (Chapter 7). The pottery and ceramic lamps, inscribed vessels and artefacts are discussed in Chapters 8–11, and the coins and artefact typology are presented in Chapters 12–13. Glass vessels and objects (Chapter 14) complete the study of the material culture. This work concludes with a chronological synthesis of the settlement history of the Balqā’ region, and an attempt to place Tall Jawa in its cultural and historical context

⁷ Examples of the basic locus sheets (Soil, Architecture, Installation, and Burial), along with forms for pottery reading, and the registration of objects, various samples, and skeletal remains are included on the DVD-ROM.

⁸ The builders of B600 reused several rooms of the Iron Age house (B700) as is, as well as certain of its walls as foundations for the new house (see Daviau 2003:343–372).

(Chapter 15).⁹ The final chapter (Chapter 16) explains the use of the Multimedia Information System on DVD-ROM, which contains a series of databases, each with its associated illustrations, as well as photographs of the buildings, a locus summary list, sample locus and registration sheets, along with selected plans and section drawings.

⁹ This volume is primarily a Level III report with the inclusion of Level IV synthesis; these “levels” of publication are those discussed in Steiner (2001:3), where she distinguishes Level III, “full illustration and description of all structural and stratigraphical relationships” from Level IV, “synthesized descriptions with supporting data.”

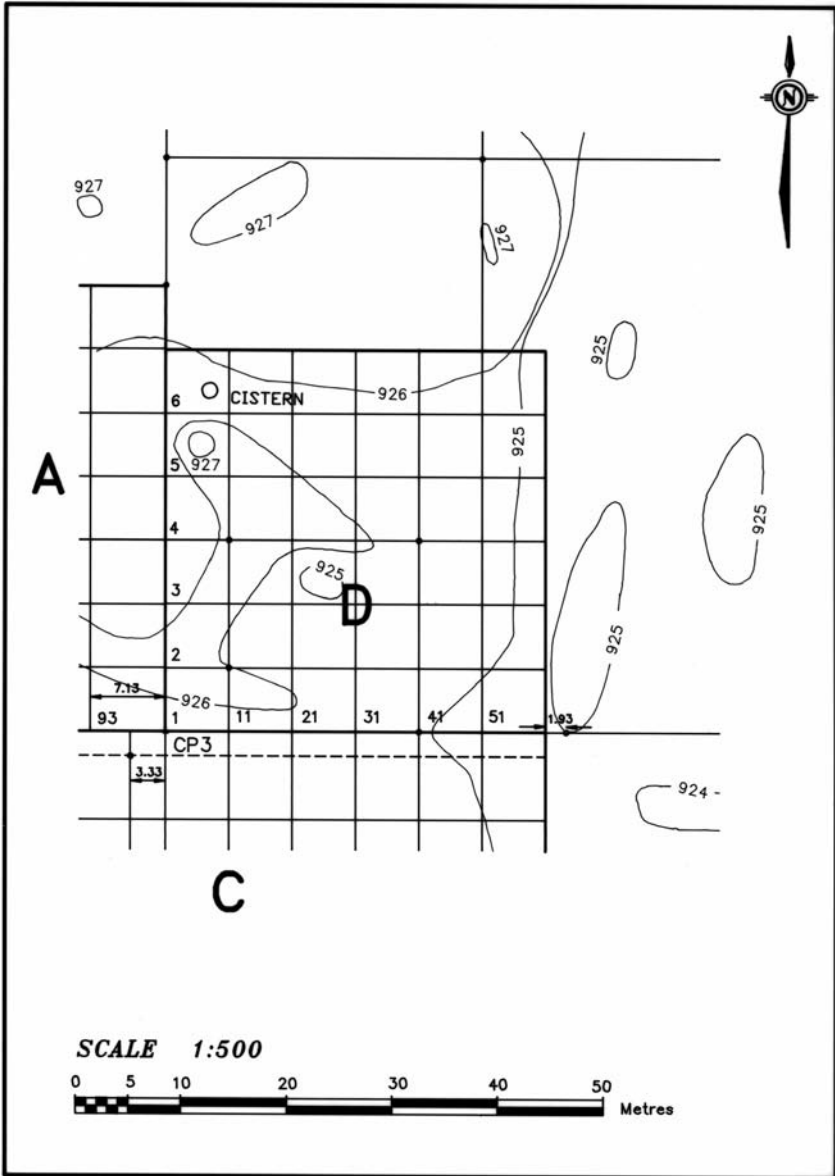


Figure 2.1. Field D, located in the centre of the mound; working grid of squares based on Control Point 3 (R. Force).

PART TWO

STRATIGRAPHIC EXCAVATION OF BUILDING 600

CHAPTER THREE

FIELD D: BUILDING 600

P. M. Michèle Daviau

INTRODUCTION

Excavation of a series of clearly delineated rooms (R601–R605)¹ along the south and east sides of Building 600 during the 1991 and 1992 seasons suggested an impressive structure, either a large house or caravanserai. It was not until the 1993 clearance of Central Hall 607 that it became apparent that Rooms 601–R605 were upper storey rooms built above a series of ground floor rooms, which were still unexcavated. With this discovery, a long term project was designed to complete the excavation of Building 600, establish the stratigraphy and chronology of the occupation periods involved, and classify all its finds.²

STRATIGRAPHIC PROBLEMS AND HISTORY

The stratigraphy of structures visible above ground level in Field D (B600, B625) differs from that of Iron Age remains recovered in Fields A–B and E, in that these earlier structures were all buried under topsoil. Because of the preservation above ground of its major walls, Building 600 suffered considerable damage since its initial abandonment as well as in modern times when its internal debris layers were seriously disturbed. This is most apparent in the central hall (R607), where the ancient collapse has been dug out to the level of the lower floor. Here,

¹ Prior to the establishment of the system of numbering rooms, walls, and vessels to correspond with building numbers, these rooms were referred to as Room A–G (Daviau 1992a:127; 1992b:154–155); Room A = Room 601; Room B = Room 602; Room C = Room 603; Room D = Room 604; Room E = Room 605; Room F = Room 606; Room G = Room 607. In this text, all room numbers are preceded by the letter R, to distinguish them from building and vessel numbers.

² Major field reports were written by Adele Tempest (1993, 1994), Serge Patrice Thibodeau (1994, 1995), and Martin Beckmann (1995).

the local folk examined a plain mosaic pavement and refilled the room with its own debris, including soil from the surrounding fields, *terra rossa* soil, and modern garbage. This is apparent in the mix of finds in Room 607 (in Loci D23:1,2) and in the fill layers in Room 605 (see below) that includes Early Islamic painted pottery, Iron Age II sherds, plastic bags and modern cans.

BUILDING PLAN AND TRAFFIC PATTERNS (FIGS. 3.1, 3.2)

Building 600 had one major period of occupation during the Early Islamic period (Stratum III)³ that ended in collapse and abandonment. In this two-storey building, there were at least 10 rooms, not counting the two corridors on the upper storey, which gave access to second floor rooms. Several rooms on the upper storey were built over the Stratum-VII Iron Age remains, which were sealed in place by the Stratum-III floors (Daviau 2003:347). During Stratum III, Building 600 was a rectangular structure, 12.55 × 18.50 m in size, with rooms on three sides of a central hall (R607).

There is no compelling evidence for the location of an entrance from the outside into Building 600. The lower-storey rooms, originally constructed during the late Iron Age II, were probably already below ground level at the time of reconstruction of the building in the Late Byzantine-Early Islamic period. Therefore, the most likely place for an entrance would be on the upper storey.⁴ In fact, Room 608 in the northwest corner would be a suitable location. Outside of the building at this point there is a stone pavement (D14:7), which appears to lead from Building 600 toward cistern D15:2 (Frontispiece). There was only limited evidence for the doorway itself, consisting primarily of fallen doorframe stones in the rockfall above West Wall 6004 (D13:1+D14:1). Unfortunately, the doorframes were located at a distance of several metres from the northern wall (W6003) and their position cannot be used to confirm the location of the entrance.

³ Late Byzantine (Stratum IV) artefacts, pottery, and architectural features suggest a short period of Byzantine occupation and its continuation into the Early Islamic period (see Chronology below).

⁴ Two door jambs located in the masonry of North Wall 6003, at a height of 2.50 m above the surface of Hall 607, support the interpretation that the entrance was on the upper storey. However, from their position, it appears that these jambs were in secondary use, and do not mark the actual position of an entrance.

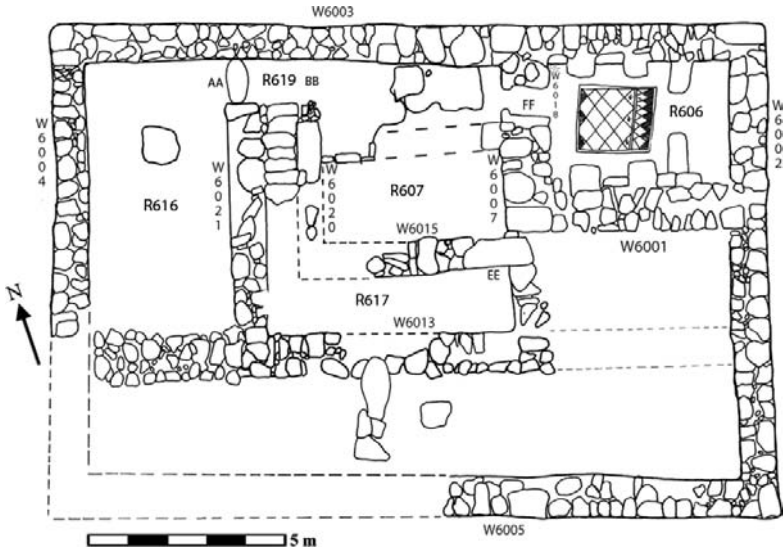


Figure 3.1. Building 600 plan and traffic patterns—lower storey.

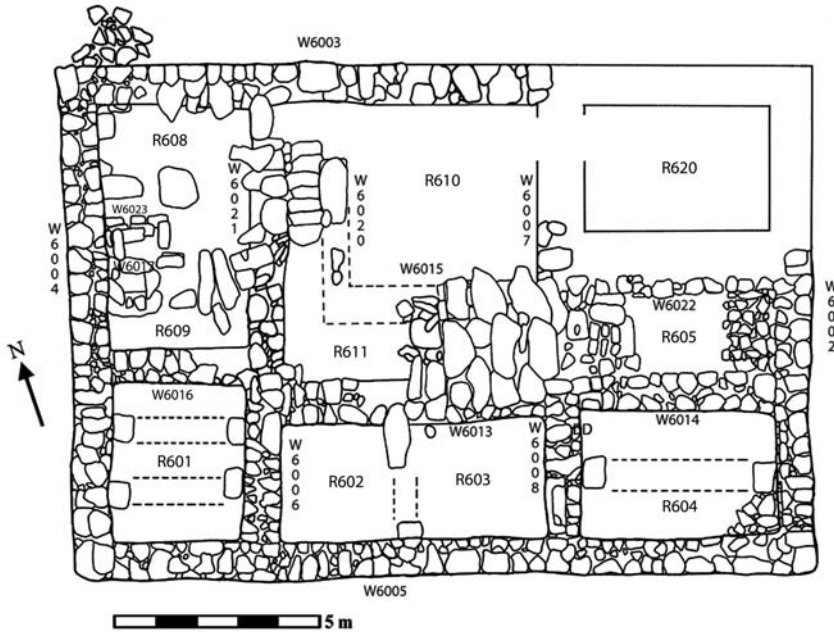


Figure 3.2. Building 600 plan and traffic patterns—upper storey.

Rooms

Central Hall 607 appears to have been the largest single room in Building 600. All the other rooms were located against the outer walls of the structure and surrounded Central Hall 607 on three sides. While Room 606 and Corridor 617 open directly into Hall 607, no other ground floor rooms open onto the hall except for a second small corridor (Room 619), which provides access to Staircase D23:43. Due to the collapse of the southern wall (W6015) of Hall 607, the full length of Corridor 617 on the south cannot be established with certainty. Several upper-storey rooms (R602+603, 605, 609) may have opened onto Corridor/Room 611 on the second floor; this room could have provided access to rooms on three sides of Hall 607 (Fig. 3.2).⁵ The hall on the lower level was at least partially roofed, based on the evidence for an east-west arch that spanned the hall and served as a major support for the ceiling. However, the size of the upper-storey room (R610) above the hall is only tentative.

Table 3A. Room Size and Proportion.

Room	Width(m)	Length(m)	Ratio W/L	Bounded by Walls
601	3.30	3.85	85.7	6004,6005,6006,6016
602+603	3.00	6.50	46.1	6005,6006,6008,6013
604	3.20	5.00	64.0	6002,6005,6008,6014
605	2.45	4.70	52.1	6001,6002,6014,6022
606	3.30	4.88	67.6	6001,6002,6003,6018,6007
607	4.50	4.75	94.7	6003,6020,6015,6007,6018
608	3.00	3.70	81.0	6003,6004,6017,6021
609	2.20?	3.70	59.4	6004,6029,6016,6017
610	4.50	4.75	94.7	6003,6020,6015,6007,6018
611	4.70	6.25	75.2	6015, Arch D13:7
616	3.80	4.00	95.0	6003,6004,6017,6021
617	1.55	6.25	24.8	6013,6015
619	0.90	2.25	0.20	6003,6021,D23:43,6020
620	3.30?	4.88?	67.6	6001,6002,6003,6018,6007?

⁵ An upper-storey room (R620) above Room 606 would have had to open into Room 610 over Room 607; however, there is only minimal evidence for the position and size of this room.

Range of sizes (omitting Rooms 610, 617, 619, 620)⁶

Width 2.20→4.50 average – 3.34 m

Length 3.70→6.50 average – 4.73 m

(omitting Rooms 610, 611, 617, 619, 620, and 607)

Width 2.20→3.30 average – 2.92 m

Length 3.70→6.50 average – 4.61 m

Doorways (Figs. 3.3, 3.4)

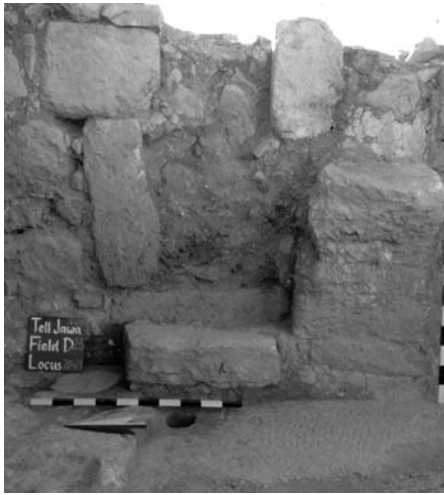
Several well-preserved doorways provide evidence that doorways were carefully fashioned with stone thresholds and steps leading up or down into the adjoining room, depending on its location in the building. For example, Doorway FF into ground floor Room 606 has two steps up from Hall 607 and one step down into the room, whereas Room 605 on the upper storey is entered by going down three steps from the threshold of Doorway DD in Wall 6008. Two Doorways (AA and BB) are reused from the Iron Age (Doorways A and B, respectively), because they lead directly from Staircase D23:43 into a short corridor (R619) with Room 616 on the left and Central Hall 607 on the right.

Table 3B. Location and Width of Doorways.

Doorway	Room	Width (m)
AA	616,619	0.90
BB	619,607	1.36
CC	603,604	0.90
DD	605,611	0.90
EE	607,617	0.85
FF	607,606	0.50–0.75
GG	601,609	1.10

The average width of the doorways is *ca.* 0.95 m.

⁶ Although there is clear evidence for an upper-storey room (R620) above Room 606, based on the amount of tesserae and mosaic fragments that collapsed into Room 606, there is no remaining architectural evidence for the exact size of Room 620.



3



4

Figure 3.3. Doorway FF into Room 606, with debris *in situ*;
3.4. Threshold into Room 604.

Walls

The outer walls of Building 600 (W6002, 6003, 6004, 6005) serve as the major support walls, and are bonded to one another at the four corners. In contrast, the interior walls, especially those on the upper storey, abut the outer walls. The outer walls measure *ca.* 0.90 m thick and were constructed of carefully laid rectangular boulders packed with mud mortar. In certain areas, it was possible to distinguish clearly the Iron Age II construction techniques that utilized large semi-hewn boulders and chink stones, and the later repairs to the wall consisting of smaller rectangular semi-dressed stones (Fig. 3.5). The topmost course was formed of two large boulders which together spanned the full thickness of the wall (Figs. 3.6a–d). This layer was probably the course which supported a brick superstructure or a superstructure made of smaller stones. The size and strength of the outer walls and of certain inner walls (*ca.* 0.80–1.00 m thick) appear to have been designed to support heavy ceiling slabs, especially those over Corridor 617 and over Room 616.

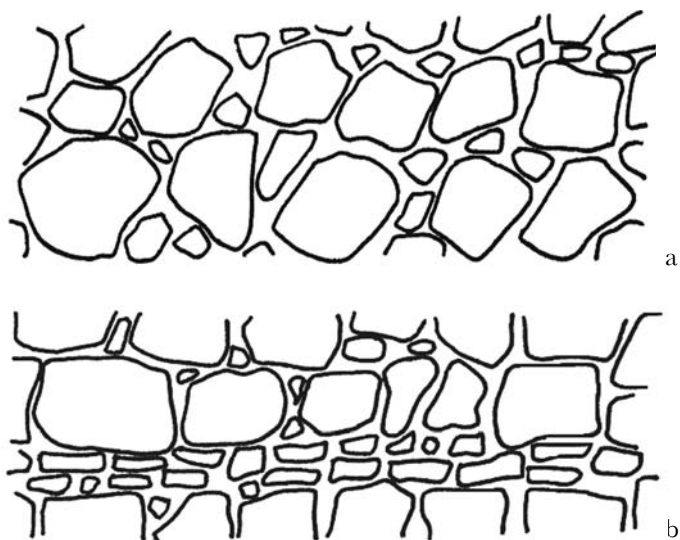


Figure 3.5. a) Typical Iron Age wall construction drawing; b) Typical Umayyad wall construction; drawings by M. Beckmann.

Table 3C. Wall Thickness in centimetres.

Wall	55	60	65	70	75	80	90	1.00	1.20
6001								X?	
6002							X		
6003							X		
6004							X		
6005							X		
6006							X		
6007									X+
6008							X+		
6009									
6012					?				
6013								X	
6014							X+		
6015						X			
6016						X			
6017					?				
6018									X+
6020					X				
6021					X				



Figure 3.6a. Northeast corner of Wall 6002, looking south.



Figure 3.6c. Southwest corner of Walls 6004 and W6005, looking east.



Figure 3.6b. Southwest corner of Wall 6004, looking north.



Figure 3.6d. Southeast corner of Wall 6005, looking west.

Staircases (Figs. 3.7, 3.8)

Two staircases were in use in Building 600, one leading from the lower floor to the upper storey (D23:43), and the second consisting of the three steps from Room 605 to Room 611. Staircase D23:43 was an essential feature of the Stratum-VII Iron Age building (B700), and was identical in construction to the two stairways in Building 800 to the south (Daviau 2003:297–298). In Building 700, two parallel support walls were footed in shallow foundation trenches cut in the bedrock. These walls (W7020 and W7021) were constructed of boulder-and-chink masonry to flank the steps on either side. Both support walls (= W6020 and W6021) were repaired in Stratum III and served as interior walls for Room 616 on the west and Central Hall 607 on the east.⁷

The individual steps are *ca.* 0.90 m wide; each step consists of a rectangular stone that spans the distance between the support walls. In some cases, there are one or more cobblestones placed at the end of the step to fill the space. The depth of the steps was in the range of 0.29–0.39 m; small chinkstones were used to keep the stones of the steps level. Removal of the seventh step in Staircase D23:43 revealed a loose soil and cobble layer (D23:48) that served as a rubble fill between the parallel support walls.

STRATIGRAPHY

The stratigraphic situation in Building 600 appears relatively straightforward; a two-storey, late Iron Age II building (B700, Stratum VII) was redesigned and remodelled for use in the Early Islamic period (Stratum III). However, the collapse of Iron Age walls and ceilings filled the ground floor rooms with 2.00 m of debris, much of which remains in place along the south side in ground-floor Rooms 712, R718 and R713, as well as in Room 714 on the west and Room 715 on the east (Daviau 2003:353–365). This means that upper-storey rooms

⁷ The three staircases constructed during Stratum VII in Buildings 700 and B800 did not make use of the outer wall of the building as a support for one side of the stairs, and this position was maintained in Stratum III. This is in contrast to the construction techniques used at Iron Age sites in Palestine, for example, in House 3038 at Hazor, where one support wall consists of the outer wall of the Stratum-Va citadel building (3090) in Field B (Yadin *et al.* 1960: pl. CCV). The same could be said for the Umayyad houses at Jarash, where the stairs in Room 41 were built up against the outer wall (Gawlikowski 1986: fig. 2).



7



8

Figure 3.7. Staircase D23:43 to left of Doorway BB;
 Figure 3.8. Stairs D22:21 = Feature 1, leading out of Room 605.

Table 3D. Strata for Field D.

Stratum	Field Phase(s)	Period
I	1	modern
II	pottery only	Medieval
III	2	Umayyad–Abbasid
IV	architectural fragments+pottery	Byzantine
V	pottery only	Roman
VI	burial/coin	Persian
VII	3	Late Iron Age II
VIII	pottery only	Iron II

could be constructed above this debris without having to remove tons of collapsed wall stones and ceiling material. The central staircase was apparently repaired and reused and several ground floor rooms were emptied and remodelled. Modern disturbance severely contaminated the Early Islamic destruction debris, adding Iron Age II material and modern garbage from the surrounding fields to the fallen wall stones which filled the northern rooms.

CONSTRUCTION AND USE OF BUILDING 600

The Lower-storey Rooms: R607, 606, 617, 619, and 616
 (Figs. 3.9; 3.10)

In the centre of Building 600, the largest ‘room’ (Central Hall 607) served as the focal point and hub for entry into the surrounding ground

floor rooms and as access to Stairway D23:43, which led to the upper-storey rooms.

Hall 607 (Fig. 3.11)

Over the past century, curious villagers and looters caused considerable disturbance to the stratigraphic record of both the occupational phases and the pattern of final collapse in Hall 607. Rumours of a mosaic floor prompted clandestine trenching through the fallen stones in the central room that resulted in the contamination of more than 2.00 m of collapsed debris. Only in a few areas close to the perimeter walls were the collapsed ceiling material, wall stones and wall plaster *in situ*, and thus of value for understanding the stratigraphic sequence in this room. The walls themselves are remarkably well preserved, still standing over 2.35 m in height. Evidence for the plaster that covered these walls is still present,⁸ especially in those areas where the ancient debris was undisturbed. Behind the remnants of painted plaster was a heavier plaster incised with depressions in a herringbone pattern, comparable to the technique used during the Byzantine period (Crowfoot and FitzGerald 1929:48; fig. 16).⁹

Hall 607 is surrounded by five walls; north Outer Wall 6003, interior west Wall 6020,¹⁰ south Wall 6015,¹¹ and two walls which frame Doorway FF on the east, Wall 6007 (south) and Wall 6018 (north).¹² South Wall 6015 is also the northern support wall for the ceiling slabs (D22:14) of Corridor 617; at the same time, these slabs serve as the floor of the

⁸ In this report, the present tense is used to describe the building in an attempt to give the sense of walking from room to room in an existing structure.

⁹ This same pattern was observed in an Early Islamic context at Umm al-Walid by D. Foran (personal communication, May 2008).

¹⁰ Wall 6020 was initially identified (Daviau 1994:191) as a continuation of Wall 6006, the west wall of Room 602 on the upper storey. Further clearance of Rooms R601 and R602 (in 1995) and of Hall 607 makes it clear that the line of wall locus D23:5 is somewhat east of W6006; D23:5 is in fact a lower-storey wall with its own construction history. Therefore, this locus was assigned wall number W6020.

¹¹ In an earlier discussion of Stratum-VII Hall 707 (Daviau 2003:365), the author suggested that Wall 6015 of Hall 607 was a Stratum-III construction. Such an interpretation is based on the fact that Wall 6015 supported very large stone ceiling slabs, a construction feature that was not found in any of the other Iron Age buildings at Tall Jawa.

¹² Wall 6008 is an upper storey wall between Rooms R603 and R604. It was initially thought that this wall continued north as the east wall of the Central Hall (Daviau 1994:191). When the lower-storey level of Hall 607 became apparent, it was obvious that the east wall had its own construction history and was not a continuation of W6008. This wall has now been assigned its own wall number (W6007).

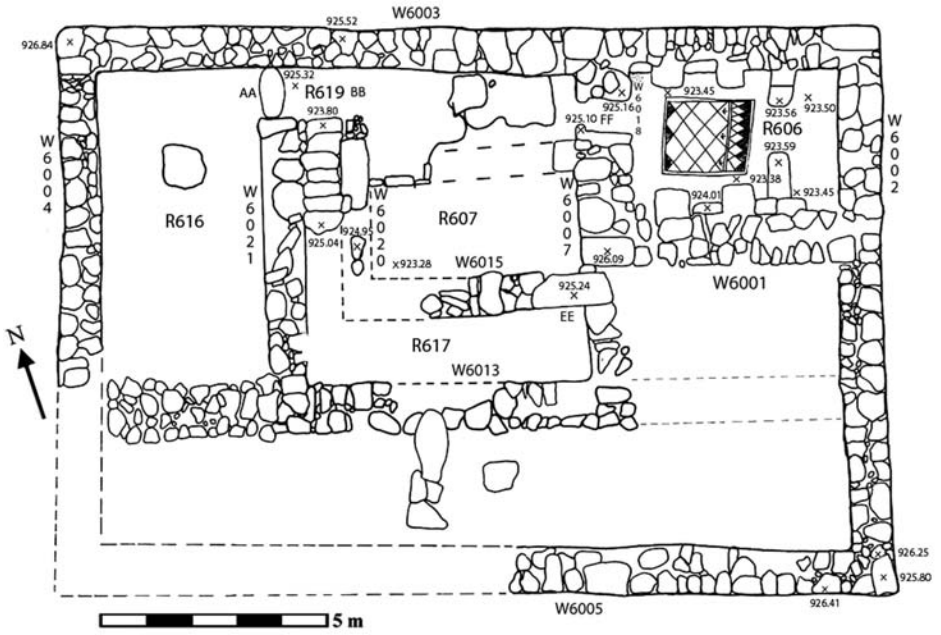


Figure 3.9. Building 600, lower storey with elevations.

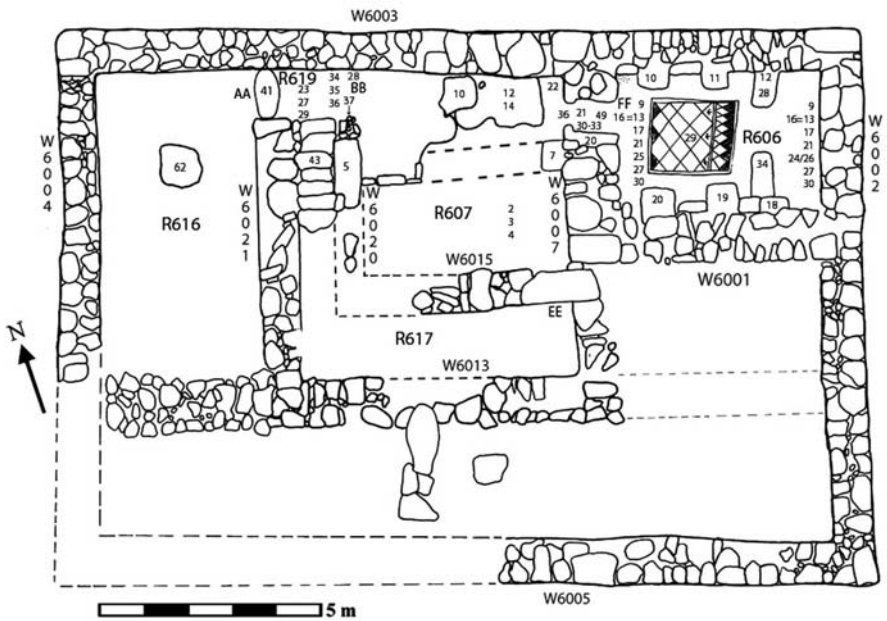


Figure 3.10. Building 600, lower storey with locus numbers.

(see Chapter 5, below). Excavation of the uncontaminated soil locus (D23:3) that sealed against Wall 6007 revealed additional fragments of plaster and ash, and it was immediately apparent that these plaster fragments were brightly painted.

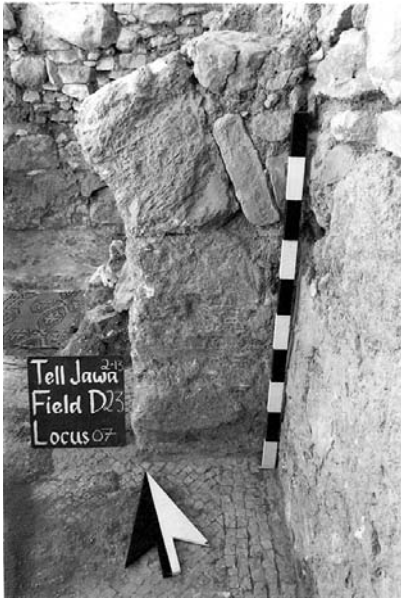
South of Doorway FF, the pier and springer of an arch (D23:7; Figs. 3.3, 3.12) abuts the west face of Wall 6007, indicating that the hall was partially, if not fully, roofed. Traces of plaster still adhere to the weathered surface of the arch pier, which is preserved to four courses in height (*ca.* 1.15 m). One flagstone, several cobblestones, and mud mortar are packed between the springer and Wall 6007. The eastern arch pier appears to have been built after a plain mosaic floor was laid, because the tessellated floor extends beneath the lowest course of the pier. The situation is different at the west end of the arch where the pier is not preserved. It was probably footed on bedrock against the east face of Wall 6020, in a space still surrounded by a stone-lined curb (D23:53), which runs east and then turns to the north. At this point, the border of the mosaic floor follows the curb, evidence that the floor was put in place after the curb was installed (Fig. 3.13). The voussoirs of the arch that spanned Hall 607 were not preserved in place but were scattered among the hundreds of collapsed wall stones in the hall.

Doorway FF

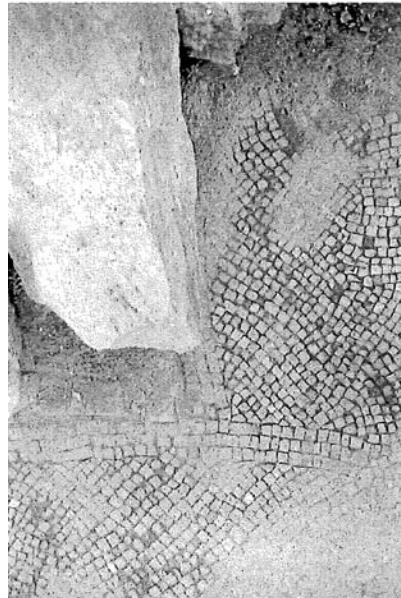
There are three doorways that open into Central Hall 607. Direct access into Room 606 is through Door FF in the northeast corner (Fig. 3.3). This entrance is framed by limestone door jambs, each jamb showing distinct tool marks. An interesting feature of this doorway is the widening of the entrance at approximately waist level; whether this was done when the door was constructed or sometime afterwards remains unknown. The northern door frame stone forms the south end of Wall 6018; likewise, the southern frame is the north end of Wall 6007.

In Hall 607, there is a single step (D23:51) up to Threshold D23:52; at this point, the level of the mosaic is 10.0 cm lower than the mosaic floor in Room 606 and a full 34.0 cm below the threshold in Doorway FF. Plaster still adheres to Step D23:51 on the southeast corner, sealing both the step and Arch Pier D23:7. Mortar, plaster, and small chinking stones also seal the step against the threshold stone on the east and the mosaic floor on the west.

The threshold (D23:52) consists of two stones, parallel to each other. Covering the eastern stone of the threshold and sloping down 11.0 cm into Room 606 is a ramp (D23:49) of very hard packed soil with



12



13

Figure 3.12. Arch springer D23:7, with Wall 6007 on the right;
 Figure 3.13. Mosaic floor following the edge of pier foundation D23:53.

charcoal inclusions. This packed soil fills the space between the threshold and the top of a step and continues below the step to the floor in Room 606.¹⁴ On the upper surface of the eastern threshold stone, the earthen ramp encircles a round door socket and a square locking hole on either side of the entrance. Very loose ashy soil (D23:34) covers the bottom edge of the ramp and extends across a small section of the mosaic floor (D23:50) in Room 606. The depositional history of these loci remains unclear, although the presence of charcoal suggests that this deposit is the remains of the collapsed door which deteriorated in place. This is supported by the fact that the mosaic carpet in Room 606 originally ran up to Threshold D23:52. Numerous lamp fragments were present in the superimposed soil deposit (D23:32,33), along with sherds of Early Islamic painted vessels, cooking pot wares (some burnt), and loose tesserae.

¹⁴ This soil has a unique consistency when compared to the remainder of the fill in the doorway (D23:21,30–33).

Doorway BB

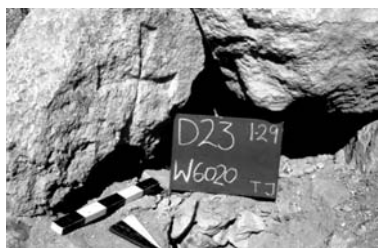
Access to the western rooms is through Doorway BB, Corridor 619, and Doorway AA in the northwest corner of Hall 607. Excavation in the area directly in front of Doorway BB revealed remnants of a very compact earth surface immediately above bedrock (D23:23+27). Here there was a painted bowl (V654), a painted medium-size jar (V694), and channel nozzle lamps V1608, V1622, and V1625. Doorway BB (1.36 m wide) leads to a staircase (D23:43) which allows access to the upper storey rooms (Fig. 3.10). Collapsed door jambs and fallen wall stones were present in the debris layers in the doorway. An unusual feature of the masonry consists of a crescent-shaped window stone with a cross carved into the outer surface (Fig. 3.14).¹⁵ In its current position, this stone may have been holding down one end of a ceiling beam.¹⁶ When found, this stone was built into the north end of Support Wall 6020 on the south side of Room 619 and the cross was clearly visible from the doorway. Although there were no traces of plaster visible on the surface of the stone that would indicate the image of the cross had been plastered over, there was a fallen limestone door jamb which may have covered the cross when it was in place.¹⁷ Fallen in the debris adjacent to Doorway BB was Lintel Stone D23/L-1, carved with three crosses on its outer face (Fig. 3.15).

The result of this collapse is an anomaly in the size of the space between the end of Wall 6020 and North Wall 6003; at 1.36 m in width, Doorway BB is wider than any other in Building 600. In spite of these anomalies, Wall 6020 appears to be an Iron Age construction (W7020), at least at its north end where it is formed of large semi-hewn boulders in the typical header and stretcher style with individual boulders that span the full thickness of the wall. The course of wall stones that is level with the exposed surface of Bedrock D23:38 is in position above a lower stone course, which was set into a depression or foundation trench in the bedrock. The extension of this depression, at the north end of Wall 6020, was filled in to the level of the bedrock (923.41 masl) with limestone flagstones and half of a perforated stone (D23:37), probably as a support for the door jamb. The west edge of

¹⁵ For a comparative study of architectural features, see Chapter 6.

¹⁶ In fact, this stone may originally have been used along with Lintel Stone D23/L-1 in a Christian church building. For evidence of a basilica-style building at Tall Jawa, see Chapter 1.

¹⁷ One could hypothesize that the entire doorframe collapsed, exposing the stone with the cross (Tempest, unpublished field report).



14



15

Figure 3.14. Window stone in Wall 6020;
 Figure 3.15. Lintel D23/L-1 with carved crosses.

this fill seals against the east side of the lowest step in Staircase D23:43; when found, this step extended north, somewhat beyond the end of Wall 7020 (see Room 619, below).¹⁸

Near the southwest corner of Hall 607, there is a small shelf or recess located in the southern half of West Wall 6020. Two flat, horizontal stones form the upper and lower frame, while two semi-hewn stones form each side. Although this recess could have served as a lamp niche, its exact nature is undetermined, due in part to the extensive collapse behind the west end of south Wall 6015, precisely at the point where it meets Wall 6020.

Doorway EE

In the southeastern corner of the hall, a third doorway (EE) is located at the east end of south Wall 6015.¹⁹ An intact *in situ* lintel reveals the full height of the doorway (*ca.* 1.35 m above the threshold). It is here, too, that the debris (D23:3) in front of the doorway was undisturbed. Finds include the fragments of painted plaster mentioned above, pieces of charcoal, tesserae, a bronze cross (TJ 1104), and fragments of ostrich egg shell (TJ 1101), one fragment with Greek lettering (Sh 44; Chapter 11). The plaster on Wall 6007 ends at the point where the wall forms a door jamb for Doorway EE; so too, the mosaic floor in Hall 607 has a border that seals against the bedrock threshold in the doorway.

¹⁸ Due to the reuse of the staircase in Stratum III, Debris Layers D23:35+36 above Bedrock D23:38 and Fill D23:37 were contaminated with pottery from both major periods of occupation.

¹⁹ A temporary sub-balk was left in place in 1993 because of the possibility of collapse of the large ceiling slabs (D22:14) still in place above Wall 6015. Between seasons, some of the plaster on Wall 6007 collapsed with upper-storey wall stones into Hall 607. This debris, as well as the material in the subsidiary balk, was removed in 1994.

Mosaic Floor (Fig. 3.16)

A mosaic floor, irregular in shape, covers the entire southern and central portions of Room 607. The northern third of the floor surface, north of Arch D23:7, is made of exposed bedrock (D23:14). The bedrock extends along the south face of North Wall 6003 and surrounds plaster-lined Cistern D23:10 (for details, see Chapter 4 below, Fig. 4.6, and DVD). The bedrock mouth of the cistern is square, while the interior is nearly circular in shape and measures 1.30 m deep by 1.27 m wide. There is a small drain hole cut through the south rim of the cistern, directly north of the mosaic border. Additional drain holes are located in the bedrock to the east of Cistern D23:10, in front of Doorway FF. The debris (D23:11) in the bottom of the cistern contained painted Umayyad pottery, glass, tesserae, Iron Age sherds coated with plaster (possibly used as chink stones), and animal bones.

While the north edge of the mosaic rests on bedrock, the rest of the tessellated floor is supported by a deep soil layer, which fills depressions in the bedrock and follows its slope from northwest to southeast where the bedrock is at a somewhat lower level, as seen in Corridor 617. The composition of this fill is revealed in a looter's trench, 1.50 m long by 1.00 m wide, which was dug to a depth of 0.50 m below the damaged central portion of the floor (Fig. 4.11).²⁰ Excavation in this trench (D23:24,25), which was full of modern garbage, mosaic fragments, and the sherds of lamp V1610, allowed for a study of the construction techniques of the floor itself. A very compact water-resistant clay layer was packed above a loose fill layer which sealed depressions in the bedrock. The top of the clay layer was levelled off with regularly laid small, flat stones. The mortar bedding was then applied and the tesserae inserted.

The pavement (D23:4)²¹ consists of both large (3.0 cm) and small to medium size (1.0–2.0 cm) limestone tesserae laid diagonally across the surface. The majority of tesserae are white limestone,²² although tesserae in several other colours (light brown, red, black, and blue) are

²⁰ This trench was dug following the 1993 season, even though precautions had been taken to protect the floor. At the bottom of the trench, a large limestone basin that may date to the previous Iron Age II construction and use of Building 700 was embedded in the fill (Daviau 2003:368–369; fig. 8.24).

²¹ Elevations published in earlier reports (Daviau 1994: fig.14) have been adjusted to correspond to levels in adjoining rooms, which were excavated in 1994 and 1995.

²² White mosaic floors were often used in rooms with a utilitarian function, such as the storeroom at Sephoris (Weiss 1993:1327).



Figure 3.16. Central Hall 607 with plaster *in situ* on the west face of Wall 6007 (in background); debris *in situ* in Doorway EE (centre) and Doorway FF (left); Corridor 617 in upper right.

randomly interspersed amongst the white cubes. Three to five rows of regularly laid white tesserae form a border that follows the contours of the walls on the east, south, and west sides as far as Curb D23:53. It is evident that the plaster on Wall 6007 was applied after the mosaic floor was laid, since the bottom edge of the wall and the outer edge of the mosaic floor are both covered by a continuous layer of plaster.

The floor was poorly laid when compared to the carpet mosaic found in Room 606 (for detailed analysis, see Chapter 4). For example, in Hall 607, when two borders meet, one border often extends beyond the other. Seams in the floor, and changes of direction of the tesserae themselves, may indicate repair, but they could also be the result of poor craftsmanship.

Pottery and Artefacts

The location and function of Hall 607 as a concourse, a possible light well and *impluvium* are good reasons for the paucity of finds on the floor of this large room. Secondly, the pattern of collapse, and the large amount of heavy stonework that fell into the hall, made it impossible to separate upper storey material from that in use on the ground floor. It was also apparent that the collapse was so damaging that pottery

was violently smashed, and sherds scattered widely, especially near doorways, with the result that mendable pottery was recovered from adjoining squares and in adjacent rooms. For these reasons, one cannot assume that the presence of lamps in Hall 607 argues convincingly for a completely roofed room. Also a factor in the depositional history is the repeated disturbance and contamination in modern times of the collapsed debris with the result that pottery and artefacts from the Iron Age and from modern times were mixed with Early Islamic material. In addition, the presence of Iron Age artefacts, especially of ground stone tools that may have been reused, is also a challenge in the interpretation of the archaeological record.

Table 3E. Pottery and Artefacts in Hall 607.²³

Locus	Finds	Reg. No.	Characteristics
D23:2,3;	3 small cups	V663,664,667	2 painted
D22:31	4 bowls	V630,631,651,652	painted
	3 cooking pots	V606,607,608	casseroles
	casserole cover	V610	
	jug	V639	painted
	4 small jars	V635,636,638,647	painted
	2 medium jars	V621,622	painted wavy lines
	medium jar	V698	
	2 lamps	V1603,1604	Jarash type
	20 lamps	V1607,1609,1611,1614,1615, V1621,1623,1624,1626,1630, V1632,1635–1638,1647,1649, V1653,1655,1657	channel nozzle
	4 lamps	V1645,1648,1650,1651	inscribed
	basin sherds		incised wavy lines
	bead	TJ 930	faience
	pendant	TJ 1104	bronze cross
	hook	TJ 1010	bronze
	candlestick lamp	TJ 1030	limestone
	ostrich egg shell	TJ 1100,1101,1102	26 fragments
	roof tiles	TJ 1075,1223,1584	ceramic
	plaque	TJ 1224,1942	limestone, perforated
	metal fragment	TJ 1105	iron

²³ Due to modern disturbance of the collapse, certain partially restored vessels were scattered throughout several loci, including locus D23:1. As a result, they could not be assigned to a specific assemblage; they are discussed, however, in Chapter 8 below. Lamps are shown in Chapter 9, and objects in Chapter 12.

Room 606 (Fig. 3.17)

Room 606 was first identified in 1992, when excavation began in Square D32. Only the topsoil and upper debris layer were removed over the south wall (W6001) revealing two arch springers at the top of two piers. In 1993, the upper debris layers were removed across the entire room (in Square D33) to complete the work started in 1992. The north wall (W6003) was exposed, along with rockfall from the upper-storey walls that filled the northwest half of the room covering the matching pair of springers. Within these debris layers (D33:0.5,1,4), there were 278 tesserae; an additional 118 were recovered from surface cleanup (D33:0.5) in 1994. In view of these finds, which provided the initial evidence for an upper storey room, the goal for the 1994 season was to complete excavation in the northeast corner of Building 600 and reach the lower floor level in Room 606.

Construction

Room 606 in its present shape was constructed during Stratum III, obliterating all evidence for occupation during the Iron Age, with the exception of the north wall (W6003). Evidence in Central Hall 607 makes it clear that this outer wall (W6003) was originally footed on bedrock at the time of its construction in the Iron Age (as Wall 7030; Daviau 2003:369). Although the base of this wall in Room 606 is obscured by the presence of a stylobate, we can assume that the eastern extension of North Wall 6003 was also footed on bedrock. The east wall (W6002) had a more complex history, since it was built further to the east than the Iron Age wall (W7025) identified in Room 713 (Daviau 2003:360). East Wall 6002 consists of two to three rows of small to very large limestone boulders. The larger stones are located in the northeast corner and in the uppermost courses, where they could serve as supports for an upper storey wall. Although the preserved remains suggest that the upper four courses of the inner (west) face of Wall 6002 collapsed along with the arches when the building was destroyed, this collapse ended 1.00 m above the floor, at a point where two thin slabs in the centre of the wall (D32:21) protrude from its west face (Figs. 3.18, 3.20). This pattern suggests that the stone slabs may have served either as a structural feature or as a shelf, given the presence of lamp fragments fallen in the debris in front of them.

South Wall 6001 and the two walls on the west (W6007 and W6018), which flank Doorway FF, were all preserved to an approximate height

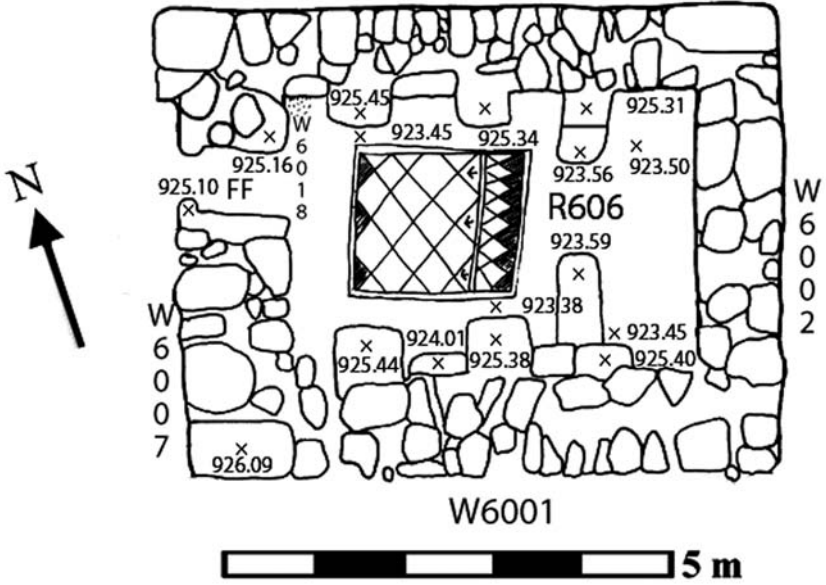


Figure 3.17. Room 606 with elevations.



Figure 3.18. Room 606 showing shelf in east Wall 6002.



Figure 3.19. East face of Wall 6007 to the south (left) of Doorway FF.

of 2.70 m. Hewn, semi-hewn, and unhewn stones were combined in a boulder-and-chink style to form the walls. Small, cobble-size stones, pebbles, and soil were also used to form rubble courses in between courses of limestone boulders. Wall 6007 to the south of Doorway FF appears to be of very poor construction, although the door frame consists of large well-dressed boulders (Fig. 3.19). Given the amount of packed soil found above the floor (D33:27), it is likely that the west and south walls were heavily covered with mud plaster. The most extensive remnants of this wall plaster (D33:31) were found in the southwest corner, covering the base of Walls 6001 and W6007 to a height of 0.18 m above the floor.

A stylobate (D33:32), formed of flat-topped limestone slabs (0.44–0.55 m in width), extends the full length of the south face of North Wall 6003 in Room 606. This stylobate, an integral part of the three piers built up against Wall 6003, was put in place prior to the construction of the floor. Fragmentary remains of white plaster (D33:31) indicate that the entire length (4.88 m) of the stylobate was plastered. Because the arch piers were constructed on the stylobate in front of the walls, rather than as integrated arches, the stylobate serves as the floor of a series of recesses between the arches. The recesses are approximately 0.65–0.75 m in length and 0.44–0.55 m deep. Along the south wall (W6001), the construction is somewhat different; here the stylobate (D33:33) is *ca.* 0.38–0.45 m in height, compared to 0.20–0.25 m on

the north. Apparently, this difference was meant to cope with the slope of the underlying bedrock, since the floor surface is *ca.* 0.09–0.14 m lower on the south.

Secondly, South Wall 6001 was built slightly to the north of the Iron Age wall (W7010), which formed the north wall of central Room 715 (Daviau 2003:364; fig. 8.18). If one examines the wall construction between the three arch piers, one sees large unhewn boulders protruding at all angles with few stones being flush. Since this wall face was unstable, the Stratum III builders set the arches in place in front of the wall and filled the eastern and western recesses with stone wall units, giving the impression of integrated arches. The recess to the west of the westernmost arch (D33:20) was filled with a small, carefully constructed wall segment that adds an extra row to the north face of Wall 6001; this wall unit runs west and appears to bond with the eastern face of Wall 6007. A similar construction technique was used to fill the recess between the easternmost pier (D33:18) and the east wall (W6002). Here also, the stones appear to bond with the west face of Wall 6002. The support walls on either side of the central arch pier (D33:19) are not bonded into the piers, but merely abut the arches and were, as a result, more prone to collapse. Only the lower course of these two walls is preserved, leaving open the possibility that the upper parts of these wall units were made of packed mud or gypsum, rather than stone.²⁴

The Arches (Fig. 3.20)

Room 606 was vaulted by three arches, whose piers are preserved to a height of 2.00–2.20 m above the floor. Arch piers D33:10, D33:11, and D33:12 are the northern counterparts to piers D33:20, D33:19, and D33:18 respectively. Each arch pier consists of three ashlar limestone blocks, footed on a stylobate, and topped with an ashlar springer. The pier blocks are all *ca.* 0.74 m in length, and range in size from 0.30–0.32 m in height and 0.32–0.35 m in width, whereas the springer stones are *ca.* 0.45 m in height (Fig. 3.21). When first exposed, Pier D33:12 was capped with a springer stone and a joggled voussoir (JV 2); unfortunately, this pier collapsed during excavation. The space between each springer and the wall is packed with undressed field stones.

²⁴ N. Johnson, personal communication. A. Tempest suggests that these support walls broke away from Wall 6001 during a major earthquake, leaving only the lowest course *in situ*. While it is not clear whether the earthquake of 717 AD was felt at Tall Jawa, it is likely that the quake of 747 AD damaged buildings in the area.



Figure 3.20. Northern arches D33:10 (left) and 11 (right) on stylobate.



Figure 3.21. Arch D33:19 (left) and 20 (right) built into south Wall 6001.

Two floor-level installations (D33:28, D33:34) formed of stone slabs divide the room into two unequal parts (Figs. 3.22, 3.23). The larger western sector (D33:29a) measures *ca.* 3.00 m east-west, whereas the eastern sector forms a broad room (D33:29b) only 1.15–1.30 m deep. Both stones marking this division are off-centre of the easternmost arch, possibly marking the location of the earlier Iron Age east wall. The northern feature (D33:28; Fig. 3.23b) is perpendicular to the north stylobate and has the appearance of a threshold stone. This ashlar measures 0.81 m long, *ca.* 0.43–0.46 m wide, and *ca.* 0.12–0.16 m in height. Its mate (D33:34; Fig. 3.23a) on the south is somewhat longer (0.91 m), but comparable in width and height. The area between these two stone slabs measures *ca.* 1.15 m and appears to have been damaged in antiquity. Two scars on the floor (*ca.* 0.30 × 0.40 m), one at each end of the stone slabs, are surrounded by patches of mortar which retain vertical edges and mark the position of a narrow extension on the end of each slab. Only one small stone of the northern extension remains in place at the south end of Stone D33:28.

The superstructure of Installation D33:28+34 was not preserved *in situ* and can only be reconstructed based on the pattern of collapse in front of the easternmost arch. Here, there was a build-up of soil above Floor D33:29 that may be the result of the collapse of a packed earth partition wall that separated the eastern portion of Room 606 from the main section (see Chapter 5, below).

A second installation (D33:30; Fig. 3.24) was located in the southwest corner of Room 606. This feature consists of six stones of irregular shape, put in place on a thin layer of soil above the tessellated floor and sealed with plaster to the adjoining walls. The function of this locus was not determined during excavation, although it may have served as a shelf or as a support. In the tessellated floor under Installation D33:30, there is a diagonal line of 13 black tesserae, a second line of 4 tesserae, and a single tessera further to the left. Apart from this design, the mosaic floor in the western third of the floor (D33:29a) is white.

The Mosaic Floor (Fig. 3.22)

The entire floor surface in Room 606 is paved with a mosaic floor. A border of white tesserae follows the outline of the room, and runs around both sections of stone Installation D33:28+34. The eastern sector (D33:29b) is paved with plain white limestone tesserae. Only in the main room (D33:29a) is the floor decorated with a central carpet design (see Chapter 4, below). In the extreme northwest corner, just



Figure 3.22. Mosaic floor with installation D33:30 in southwest corner.

before one passes through Doorway FF into Central Hall (R607), a small circular depression was carefully constructed using closely packed white limestone cubes. The exact function of this feature cannot be determined on the basis of Building 600 alone, however, S. Thibodeau noticed similar depressions in mosaic floors in buildings in the town of Madaba, suggesting that this feature functioned as a support for a water jar.

Wall Decoration

The north stylobate was coated with plaster. Sections of plaster are still preserved *in situ*, and in some cases, one can see where the plaster was also applied to the facing of the north wall (W6003) and to the sides of the arch piers, and then blended in with the plaster on the stylobate. On the south side, the wall units, the arch piers and the stylobate were all covered in plaster. The plaster itself was in several layers, with the outermost layer painted and inscribed. The heaviest concentrations of painted plaster were located along the south wall, especially in front of the easternmost arch pier (D33:18; see Chapter 5).

The elaborateness of the decor and the marked absence of utilitarian finds strongly suggest that Room 606 served a specialized function, possibly as a reception area. At the same time, there is no evidence

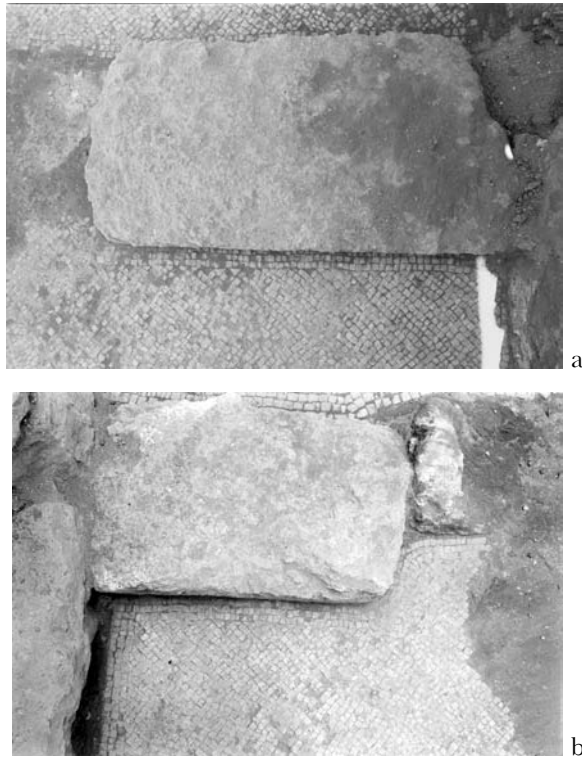


Figure 3.23. Floor level installations, a) south feature (D33:34); b) north feature (D3:28) looking east.

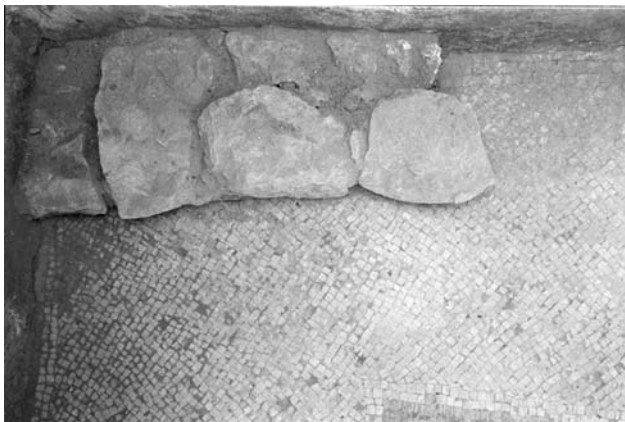


Figure 3.24. Installation D33:30 in southwest corner of R606.

for windows in Room 606, so any light would have to originate either from the Central Hall (R607), or from an artificial light source. The abundance of ceramic lamps and glass lamp shards found in this room helps to explain one means taken to provide illumination.

Pottery and Artefacts

The pattern of artefact accumulation above the mosaic pavement is peculiar. There were no finds on the floor itself (D33:29)²⁵ even though the soil (D33:27) immediately above the floor contained one intact lamp (V1642 = TJ 1555) and 30 lamp fragments, one with an Arabic inscription in the channel (V1643 = TJ 1692). The overlying soil layer (D33:26; *ca.* 0. 35 cm deep above the pavement) produced two nearly intact lamps (V1620 = TJ 1553, V1628 = TJ 1554) and 11 lamp fragments, including three mendable lamp sherds inscribed in Arabic within a pattern of arches (V1641 = TJ 1693). It is only here, *ca.* 0.50 m above the floor, that the plaster fragments from South Wall 6001 and the southern arches begin to appear and are present in abundance in the second superimposed soil layer (D33:24).²⁶ Additional lamps, including V1644, were recovered in overlying debris layers (D33:17, 21).

Table 3F. Pottery and Artefacts in Room 606.

Locus	Finds	Reg. No.	Characteristics
D33:25, 26,27+	2 bowls 15 lamps	V632,633 V1605,1606,1619,1620, V1633,1634,1641–1644, V1652,1654,1658,1660,1662	channel nozzle
D23:30,32	baggy jar	V692	

Evidence for an Upper Storey Room

The evidence for a second-storey room with a mosaic floor is derived from the presence within the superimposed debris layers in Room 606

²⁵ A grid was laid over the soil immediately above the floor, dividing locus D33:27 into 6 units. Units A–C ran west to east in the north half and units D–F ran west to east on the south. Each unit was then further divided into 4 smaller units to refine the process.

²⁶ At this stage of excavation, the area of the room was only divided into the two main sectors with soil layer D33:24 in the east and layer D33:25 in the west.

of over 9,775 loose tesserae and large fragments of mosaic bedding plaster, still containing tesserae. Also within these debris layers (D33:9, 13+16, 17, 21) were a number of long rectangular ceiling slabs, voussoirs, and wall stones. It was in soil locus D33:13, *ca.* 1.00 m above the floor, that roof tile fragments were present.²⁷ The majority of the loose tesserae (7,178; 73.43%) are small in size (1.00–1.02 cm on a side); 91.31% are white stone, 4.50% black, 3.79% red, and 0.40% orange. The medium tesserae constitute only 21.70% of all tesserae recovered, with white comprising 89.60%, red 3.96%, black 6.36% and medium orange 0.09%; large cubes (3.0–4.0 cm on a side), apparently used for the border, account for only 4.86% of all tesserae, and of these, 99.36% are white. Of the 9,775 tesserae recovered, 6,532 were small white cubes, a fact which suggests that approximately 66% of the upper floor mosaic was constructed with small white tesserae. It may be that a simple geometric pattern, perhaps similar to the one found on the lower level, was formed using the coloured cubes.²⁸ This evidence suggests that there could have been a triple arched room with a mosaic floor on each floor level.²⁹

Ruin and Abandonment

The evidence presented here indicates that there was only one major occupational phase within Room 606 during the Early Islamic Period. Although shedding little light on the date of abandonment, the stratigraphy of debris layers in Room 606 does provide some clues as to the sequence of events that led to its present state of ruin. In the soil locus above the floor (D33:25), the debris indicates that only a minor collapse occurred, possibly the inner wall facings between the southern arches. This collapse also caused the painted plaster to crumble, falling

²⁷ It is not clear whether the archaeological record in this room was disturbed in antiquity or in modern times. It is also in debris Layer D33:13 that the first sherds of a brittle ware cooking pot (V1203) made their appearance (Daviau, in preparation), the only pot of its kind amidst a dozen Umayyad style cooking casseroles. Occasionally assigned to the Umayyad period (Al-As'ad and Stepniowski 1989:215), it is more often assigned to the late Fatimid period (Northedge 1992: Fig. 137:5); the position of this pot within the upper levels of the ceiling collapse could not be explained satisfactorily.

²⁸ These calculations were prepared by S. Thibodeau, square supervisor in 1994; revisions are by the author.

²⁹ An alternate explanation would be that the ceiling of Room 606 was covered with mosaics (Daviau 1996:96) and that there was only a one-storey room in this corner of Building 600; however, see below for discussion of the sequence of collapse.

onto the soil (D33:24) in front of the arches. The presence of 1,909 tesserae in these two soil loci indicates the problems of separation of the collapsed ceiling and upper-storey material. It is in the superimposed soil and rockfall layer (D33:21) that there is the first major collapse of voussoirs and ceiling slabs.³⁰ There were 2,389 tesserae, a number of mosaic fragments, chunks of mortar and one roof tile in this debris.

Although the most extensive damage appears to be in the southeastern sector of the room, a large portion of the upper floor collapsed into the south central area (D33:17). With this collapse, there were large patches of mortar bedding found in small concentrations, 1320 tesserae, thin ceiling slabs and voussoirs scattered throughout the room. In the west end of the main room, there was a limestone doorjamb (D33:15) and a stone lintel (D33:14), probably from Doorway FF. Other finds consist of iron nail fragments, ceramic lamp sherds, glass rims and body shards, and fragments of painted plaster. After this major collapse, it appears that a portion of the upper floor remained *in situ*, supported by the collapse itself and the partially standing arches. Over time, fine wind-blown soil and soil washed in by winter rains created a deposit of very loose soil covering this collapse (D:16, 13); contained within this soil layer were three roof tiles and 1,472 tesserae.

The next phase saw the second collapse of the arches (D33:9) into a debris layer in which 90% of the architectural stones were voussoirs. Tesserae (1,724) were again present along with a lamp and an iron ring. These voussoirs were found lying in a northeast-southwest pattern on top of and slightly protruding from a layer of soil (D33:13). Clusters of tesserae were collected from between the voussoirs.

The collapse of the upper floor arches and ceiling is represented in debris layer D33:7; in this locus, over 80% of the architectural pieces were voussoirs and thin ceiling slabs. Semi-hewn wall stones also collapsed into the room. The lack of any substantial evidence for the roof, apart from a small number of broken roof tiles, suggests the use of wooden beams. These are not preserved in the archaeological record at Tall Jawa; however, the presence of iron nails supports this hypothesis.

³⁰ Hirschfeld (1995:243) notes that the use of arches to support the roof became the norm in the Byzantine period and is not mentioned in earlier Jewish literary sources.

There is no evidence for the re-occupation of Room 606 after the collapse of the upper floor. This is understandable considering the massive amount of rock fall from the walls, ceiling and arches in this room.³¹

Corridor 617

Corridor 617 (Figs. 3.10, 3.16) is located along the south side of central Hall 607. In the southeast corner, a single doorway (EE) was still covered with its lintel. The lintel is embedded in the east end of Wall 6015, which continues west to the point where it meets Wall 6020. Wall 6015 serves both as the south wall of Central Hall 607 and the north wall of Corridor 617. The south wall of the corridor (W6013) is a major east-west support wall built in Stratum VII (as W7024) and reused in Stratum III. These two parallel walls support three rows of very large ceiling slabs (D22:14) that range in size from 1.05–1.45 m in length, and 0.55–0.70 m in width, and 0.30–0.35 m in thickness. A total of 12 such stones were *in situ* when excavation began. (Fig. 3.25).

The corridor itself measures only 1.55 m in width, while its length is undetermined. In Stratum III, it could have extended west as far as Wall 6029. However, extensive collapse in the southwest corner of Hall 607 made it impossible to reconstruct the Stratum III use phase of Corridor 617 at this point. Only the eastern third of the corridor, near Doorway EE, could be excavated from ceiling to floor. In Stratum III, north-south Wall 6027 forms a recess that closes off the eastern end of Corridor 617. This wall (W6027), located east of the south end of Wall 6007, is footed on bedrock and appears to be a blocking wall that filled a doorway (G) leading from Stratum-VII Room 715 into Corridor 717=617. In this recess, the soil layers (D22:15–18; Daviau 1994:190) under the ceiling slabs contained a burial of several humans along with the partial remains of animals (see Chapter 7 below). Excavation of the soil layers from ceiling to floor in this area³² did not yield evidence

³¹ We required the use of a crane to excavate the large number of fallen voussoirs and ceiling stones.

³² The skeletal material in its soil matrix was excavated in 1993. In order to determine the date of the burial, a careful investigation of the stratigraphy was undertaken by V. Davies in 1995. She established a grid of 6 small squares over an area 0.75 m wide and 2.00 m long inside Corridor 617. Bedrock was reached in sub-squares 4 and 6, along the north face of south Wall 6013=7024.



Figure 3.25. Ceiling slabs above Corridor 617 showing angle of collapse.

for either the date of the burial or the events that resulted in these deaths in Building 600.³³

The bedrock floor (D22:44) of Corridor 617 is relatively uneven and is *ca.* 0.45 m lower than bedrock at the north end of Central Hall 607. Although there were no finds on the floor itself, the overlying soil layer (D22:43) contained 50 pieces of charcoal and a number of animal bones.³⁴ Animal bones were frequent in the superimposed soil layers (D22:42,41),³⁵ while ceramic sherds were few in number (18 sherds in 13 baskets of soil, and 26 sherds in 10 baskets, respectively). The heaviest concentrations of animal bones were in Soil Layers D22:38+37. At this point, the soil is 1.15 m above the bedrock floor surface. Scattered remains of human bone begin to appear in Soil Layer D22:36 and continue in each superimposed layer, until the uppermost layer (D22:16) which rests at 0.44 m below the ceiling slabs (D22:14). Although we cannot satisfactorily explain the presence of the human remains, the animal bones in the soil layers immediately above the bedrock floor appear to be discarded remains that accumulated during Stratum III. The presence of the border of the mosaic floor in Room 607 sealing

³³ Of interest is the report by Tristram of his visit in 1873 to Kasr el Herri (Rujm al-Hiri), where he explored a “hole” in the ruins that contained human skulls, long bones (mostly thigh bones) and camel bones. This collection he identified as a hyena’s den (Tristram 1874:177–178).

³⁴ All faunal material from Tall Jawa is under study by P. R. W. Popkin (Daviau, in preparation).

³⁵ D22:42 and 43 were excavated in grid sub-squares 4, 6, and 7, while D22:41 was exposed across the room in grid squares 3–7.

up against the base of Wall 6015 makes it clear that this wall and Doorway EE were an integral part of the Stratum-III building.

Corridor 619

In the northwest corner of Room 607 is another corridor (R619) located at the foot of Staircase D23:43 (Fig. 3.10). This is a small room which measures only 0.90 m in width and extends 2.25 m from Doorway BB to Doorway AA into Room 616. The outer wall (W6003) of Building 600 forms the north wall of the corridor. On the south, the staircase (D23:43) and its support walls (W6020, W6021) form the opposite side. The floor surface in Corridor 619 consists of Bedrock (D23:38). Before the doorframes at the ends of the support walls were put in place during Stratum III, depressions in the floor were filled with packed soil and stones (D23:37). The frame of Doorway BB was then put in place, with the result that the north end of Wall 6020 was now located beside the front edge of the lowest step in Staircase D23:43. On the left, in Doorway AA, one passes under Lintel D23:41 and then into Room 616 in the northwest corner of the building.

Room 616 (Fig. 3.26)

The north and west outer walls (W6003, 6004), along with staircase Support Wall 6021, serve as the principal walls of Room 616. Wall 6021 shows clear signs of extensive repair; the lower courses are the original Iron Age construction in boulder-and-chink masonry (Stratum VII; W7021), whereas the upper courses were built of small flat stones, randomly laid and capped with medium size boulders.³⁶ This wall line (W6021), identified as Wall 6029, extends 2.25 m to the south. The wall itself (W6029) consists of two rows of boulders and measures 0.78–0.91 m thick, whereas staircase Support Wall 6021 measures only 0.65–0.70 m thick.

The bedrock floor surface (D13:54) in Room 616 dips slightly (923.34 to 923.16 masl) from west to east along the north wall. Near the west face of Support Wall 6021, the bedrock is covered with a layer of *terra*

³⁶ Only the eastern half of Room 616 was excavated to floor level, due to the heavy collapse of upper-storey ceiling slabs, and the instability of slabs still in place on the west.



Figure 3.26. Room 616 looking north with Wall 6003 in background.

rossa and small cobbles, firmly packed to level off depressions in the bedrock where it dips under the staircase.

Two features rest on the floor surface, Pillar D13:62 and Wall Stub D13:63. The pillar stands almost in the middle of the room and certainly functioned as a ceiling support. Originally, it may have been at the east end of an Iron Age pier wall, with its west end abutting outer West Wall 6004. In its current condition, the pillar stands 1.68 m in height, just below the top levels of the ceiling slabs (D13:30a–g) which support the floor of upper-storey Room 608 (see below). Only the eastern face of the pillar was exposed, with the result that the Pier Wall was only visible from the top, where it appears to connect with ceiling stone D13:30a.

Table 3G. Pottery and Artefacts in Room 616.

Locus	Finds	Reg. No.	Characteristics
D13:52,53, 55,56	744 ceramic sherds 28 glass shards 11 tesserae 1 roof tile		some painted sherds

Four boulders make up Wall Stub D13:63, with a preserved height of 0.59 m. This short wall (0.75 m in length) is footed on bedrock and abuts outer North Wall 6003. Because it was only partially excavated, its function remains obscure. So too, its dating is problematic, because its position on the floor makes it impossible to determine whether it had been constructed and in use during the Iron Age. We can only assume that the close association of this wall with Doorway AA and with the repairs to both the north and west outer walls in Stratum III assures its use, if not its initial construction, in Stratum III.

Pottery and Artefacts

The finds from Room 616 were chronologically mixed; Late Byzantine and Islamic material was contaminated with Iron Age II ceramic sherds, probably the result of emptying this room and reusing soil which contained earlier material. What is significant for our understanding of the later use of this space is the presence of glass shards and Umayyad painted pottery.

ROOMS ON THE UPPER STOREY

Room Arrangement (Fig. 3.27)

In order to construct additional rooms on the upper storey along the west, south, and east sides of B600, the builders repaired the Iron Age walls, which they used as a foundation for the new superstructure. Outside of the western (W6004) and southern walls (W6005) of Building 600, excavation in limited areas exposed a series of superimposed soil layers (D2:7,9,10), which sealed against the outer face of the major walls and rested on a possible construction surface (D2:8). The construction surface is marked by a considerable amount of nari mixed into the surface, which is grayish brown in colour, considerably different

Inside the building, *ca.* 2.00 m of Iron Age collapse was left in place and the upper-storey rooms were constructed above this fill. The seven interior walls,³⁷ which form the upper-storey rooms, abut the outer walls (W6002, W6003, W6004, W6005), whereas the outer walls are bonded to one another at the corners. After the consolidation and rebuilding of the outer walls, the interior walls were constructed above the Iron Age collapse or on wall stubs which had been repaired to form the seven rooms used in Stratum III, Rooms 608 and 609 on the west side, Rooms 601, R602+603, and R604 on the south, and Rooms 605 and R620³⁸ on the east. The addition on the upper storey of a corridor (R611) above Corridor 617 and of a large room (R610) above Hall 607 to facilitate access to the rooms on the east and west sides of the building is also likely.

Rooms along the South and East Sides (R601, 602+603, 604, and 605)

Room 601 (Figs. 3.28, 3.29)

The Iron Age collapse that filled the lower-storey Iron Age room (R712) in the southwest corner of Building 600 was left in place and levelled off by the new inhabitants to provide a firm foundation for construction of a room with a different size and orientation. This underlying debris (D2:22,21), only partially excavated in Room 712 (under Room 601), consists of collapsed limestone boulders in the range of small and medium size stones along with cobblestones and nari pockets. The origin of this rockfall was probably the outer upper-storey walls of the late Iron II building (B700), as well as internal Wall 7019, the north wall of Room 712 (Daviau 2003: fig. 8.16). The Stratum-III builders stabilized this wall and filled in its uppermost courses (D2:23) to establish a secure foundation for features constructed above it. The pottery in these rockfall loci was contaminated, for it included both Iron Age II and Early Islamic sherds, along with Iron Age basalt upper loaf-shaped millstones (TJ 1768, 1779), and fragments of glass and tesserae. This combination is evidence of the work done to prepare the area for construction of an upper storey room.

³⁷ These walls, running clockwise east to west, are W6001, W6010, W6014, W6008, W6006, W6016, 6017 and 6023.

³⁸ Even after excavation, it was not certain whether in fact there had been a room above northeast corner Room 606, see discussion above.

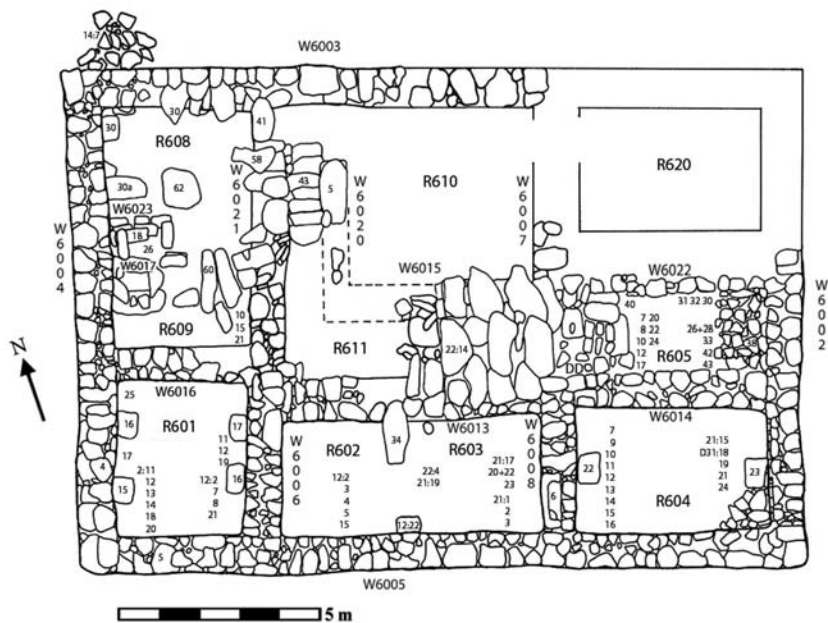


Figure 3.28. Building 600, upper storey rooms with locus numbers.

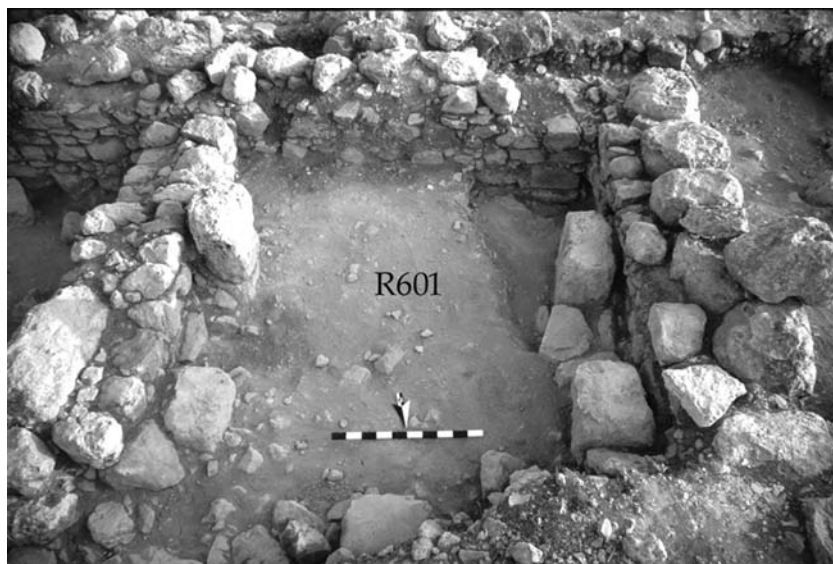


Figure 3.29. Room 601 looking south with arch piers against Wall 6004 on the right (west) and Wall 6006 on left.

The outer walls of B600 were repaired and served as the south (W6005) and west (W6004) walls of the room. A new wall (W6016), built just to the north of underlying Wall 7019, extends east-west and constitutes the north wall of R601. The most likely location for a doorway (GG) into Room 601 is between the east end of Wall 6016 and the west face of east Wall 6006. This new north-south wall (W6006) constitutes the eastern perimeter of Room 601; it was footed on the consolidated boulders (D2:27) of the Iron Age collapse and, at its north end, on the highest preserved courses (D2:23) of Wall 7019.

Iron Age Wall 7019 also functioned as the footing for a pair of arch piers (D2:16, D12:17), *ca.* 2.30 m apart, on opposite sides of R601. Pier D2:16 is formed of a dressed limestone block ($0.42 \times 0.56 \times 0.50$ in height) set flush against the east face of outer West Wall 6004. On the east side of the room, Pier D12:17 has lost its matching block and only a base rock ($0.40\text{--}0.45 \times 0.55 \times 0.30$ cm) is preserved, set in place against the west face of Wall 6006. A second pair of piers (D2:15 and D12:16) located in the southern third of Room 601 were founded on rock tumble (D2:21 west; D2:20 east)³⁹ with several stones packed in place to form a base (D2:26). Pier D2:15 is set up against Wall 6004 and consists of two dressed limestone blocks, the uppermost of which measures $0.35 \times 0.66 \times 0.55$ in height. Pier D12:16 on the east side consists of a squared boulder ($0.45 \times 0.55 \times 0.60$ m in height) in position on a base rock which is embedded in the underlying rockfall (D2:19).

The Stratum-VII wall (W7019) also stabilized the collapse on either side of it and served as a support for two large (0.75–1.00 m long) stone slabs (D2:28) set perpendicular to the south face of north Wall 6016 and located at floor level; the north end of each slab was built into the wall. In the recess formed between these stone slabs and arch Pier D2:16 is a stone pavement (D2:25; Fig. 3.30), which is preserved in the northwest corner formed by West Wall 6004 and North Wall 6016. The pavement consists of one rectangular stone surrounded by smaller stones packed with mud mortar. On this pavement there was an accumulation of bitumen which had melted and flowed between two

³⁹ Because the balk line bisected the room on an awkward angle, the Iron Age layers of collapsed debris in Room 601/712 were all recorded as Square D2 loci during the 1995 excavation season.



Figure 3.30. Room 601, NW corner with limestone paving stone embedded in the floor.

of the paving stones. Adjacent to the bitumen was a ceramic cooking casserole and a group of mendable sherds, all clearly remains of Early Islamic period occupation.

Against the lower stones of the piers, the builders laid a soil layer (D2:20) to fill the crevices in the Iron Age rockfall (D2:21,22,24) and provide a level foundation for a new floor (D2:19). The floor surface itself was hard-packed soil with nari pockets. Embedded in the floor were two installations; one (D2:17) between the western arch piers (D2:15,16) that consisted of three dressed limestone slabs (a stylobate?), and another (D12:19) on the east between piers D12:16,17. This second installation was somewhat more complex than the one on the west, since it included a depression surrounded by small dressed stone slabs (D12:19), laid on their long edges, which supported a marble floor tile (D12:11=TJ 184; Figs. 3.31a, 31b). The soil (D12:12) in the depression contained ceramic sherds, especially a sherd from a large painted jar (V646; Daviau and Beckmann 2001: fig. 4:19), and some badly corroded metal fragments that appear to have been lamp hooks (TJ 243, 245). Because no other tiles were found on the floor, it is not possible to tell whether the floor was completely paved and later robbed, or whether the single tile between the arches had a special function.

Inserted into the south Wall (W6005) just above the level of the floor was a short section of a ceramic pipe (Fig. 6.3:1–2). Investigation of the southern, outer face of the wall showed that the pipe did not extend through the wall, but only penetrated the northern face of Wall

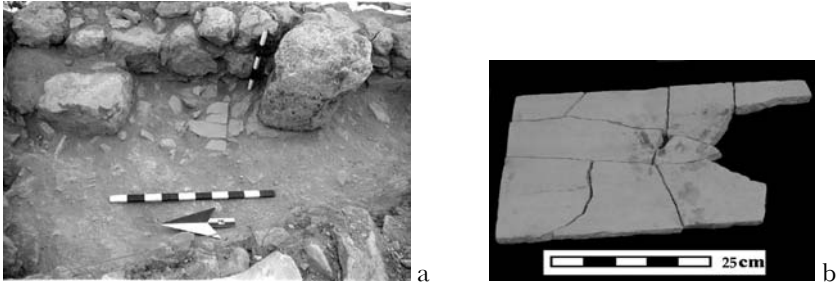


Figure 3.31. a) Remains of arch piers D12:16 (right) and D12:17 (left) with marble floor tile TJ 184 *in situ*; b) TJ 184.

6005 for a short distance. The exact function of this pipe could not be determined during excavation.⁴⁰

When completed, Room 601 measured 4.00 m north-south and 3.75 m east-west. On the Stratum-III floor surface (D2:19), which covered the entire room, the finds were few and all the ceramic vessels and glass objects were broken. Within the surface itself were 21 pieces of glass, including 8 thick (0.30–0.40 cm) shards (see below). In the fill (D12:8) above the marble tile (D12:11) was a group of mendable sherds from a white slipped and red painted vessel, typical of the Early Islamic period.⁴¹ Higher up in the collapsed debris (D12:7) was a well-preserved ceramic lamp (V1631=TJ 185) decorated with grape clusters and flowers.⁴²

Scattered within this collapse were the sherds that formed a partially preserved jug (V618) inscribed with the Greek letters $\text{Ν}\alpha\text{Ο}\upsilon\text{Μ}\alpha$ (Daviau and Pietersma 1994). The sherds of Naoumas' jug were recovered from two loci within the area of Room 601; eleven sherds were located on the uppermost preserved course of Wall 6013.⁴³ The single inscribed sherd was recovered from the upper course of South Wall W6005 under

⁴⁰ Although we were able to photograph the pipe *in situ*, its full story cannot be known, since it was removed from the site by an unknown person after the end of the work day.

⁴¹ The date of this vessel is variously identified as Late Byzantine, Early Islamic (Umayyad) or early Abbasid (K. W. Russell and M. Najjar, personal communication, July 1991). For parallels, see Pella (Walmsley 1995: fig. 6:6).

⁴² This decorative style with vine motifs was very common and appeared in a variety of styles both at Tall Jawa (Daviau and Beckmann 2001: Type 3; Chapter 9 below) and throughout central Jordan, as well as in the Jerusalem area (Arndt 1987).

⁴³ These sherds were originally thought to be on a staircase leading to a third storey room. Only in 1995 was it clear that Locus D12:13 was a wall (W7024) that

Soil Layer D2:11. The stratigraphic situation of these widely scattered sherds suggests serious disturbance of the collapsed debris during and subsequent to the destruction of the building.

Table 3H. Pottery and Artefacts in Room 601.⁴⁴

Locus	Finds	Reg. No.	Characteristics
D2:1,11-14,18, 20+D12:2,7,8	casserole	V604	
	casserole	V605	
	cover	V616	casserole
	small jug	V618=TJ 138	inscribed, ΝΑΟυΜα
	juglet	V656	
	lamp	V1631=TJ 185	channel nozzle
	2 small jars	V601,669	
	large jar sherd	V646	under D12:11=TJ 184
	hanger	TJ 243	iron; under D12:11= TJ 184
	eye hook	TJ 245	iron; under D12:11= TJ 184
	floor tile	TJ 184	marble
	bitumen	D2:25/Fld# 1	natural material
	drain pipe		in Wall 6005

The destruction of Room 601 was due to the collapse of the surrounding walls (W6004 on the west, W6005 on the south, and W6006 on the east); W6006 appeared to slope northeast into the centre of the building with the collapse of the massive lower-storey ceiling slabs along the north side of adjoining Room 602+603.

Room 602+603 (Figs. 3.32, 3.33)

To the east of Room 601 is the longest Room (602+603) in Building 600, measuring 3.00 × 6.50 m.⁴⁵ Built up against the outer South Wall (W6005) which shows clear evidence of repair in Stratum III, Room

was poorly preserved, with stone collapse that resulted in a pattern of steps (Daviau and Pietersma 1994:76).

⁴⁴ The degree of disturbance of the upper debris layers was quite severe. The result was the mix of Iron Age and Early Islamic materials. Some of the artefacts that could be Iron Age in origin were included in the report on the typology of Iron Age artefacts (Daviau 2002). Nevertheless, they are included here again, since they may have been reused during the occupation phase of Building 600.

⁴⁵ Originally thought to be two distinct rooms (Rooms B and C, Daviau 1992b:155), it became clear with further excavation that the middle of Room 602+603 was not



Figure 3.32. Rooms 602+603 looking south; L. Cowell standing on south Wall 6005; J. Hasan in foreground.



Figure 3.33. Room 602 looking south with Wall 6006 and Room 601 on right.

602+603 is bounded on the east (W6008) and west (W6006) by walls footed in Iron Age rockfall which served as a construction platform (D12:21, D21:20). Wall 6006 was constructed of small, medium and large boulders in a rough boulder-and-chink style with an extra large (1.30 m long) boulder at the northeast corner where it bonded with

marked by a wall but by an arch. The supporting stones of the pier (D12:22) were preserved against South Wall 6005.

east-west Wall 6013. The appearance of Wall 6006 suggests that the Stratum III builders made use of Iron Age materials that were readily at hand. Wall 6008 at the east end of Room 602+603 was also formed of small, medium, and large limestone and chert boulders, some of which were semi-hewn or dressed. This east wall is two rows thick and remains standing 2–3 courses high (0.66–0.73 m).

The northern wall (W6013) of this large room is supported along its south face by an underlying Stratum-VII wall (W7019+7024). At the time of excavation, Wall 6013 was very poorly preserved, due in part to the pattern of destruction in Corridor 611, above Corridor 617 (Fig. 3.34). Here the stones (D22:10) of Wall 6013 collapsed onto the large floor slabs (D22:14) of Corridor 611 and then slid into Central Hall 607, forming a slope down which additional debris and wall stones fell (Fig. 3.25).⁴⁶ Wall 6013 appears to extend the full length of Room 602+603 as far as east Wall 6008, which abuts it from the south.

Doorway CC, which leads from the east end of Room 603 into Room 604, is located between the south end of Wall 6008 and Outer Wall 6005 (Fig. 3.35). Built into Wall 6008 is a limestone threshold (D21:6) which measures 0.50 wide \times 1.36 long \times 0.30 m thick. Along its eastern edge, this limestone block has a shallow socket depression, 0.02–0.03 m deep. A stone doorsill (D21:4), which is in Room 603 proper, consists of a limestone block, measuring 0.44 \times 0.96 \times 0.26 m thick, set in place on a foundation of cobble size stones. The east face of the sill was set parallel to the west face of Threshold D21:6, with the lower edge or groove against the threshold.⁴⁷ The south end of the sill abuts South Wall 6005.

The major feature of R602+603 was a transverse arch which spanned the middle of the room. The south end of the arch, consisting only of a dressed limestone boulder (D12:22; 0.37 \times 0.56 \times 0.32 m in height) set against Wall 6005 (Figs. 3.27, 35), has its base above Stratum-VII Wall 7023. The position of the pier is nearly midway between west Wall 6006 (2.90 m) and east Wall 6008 (3.10 m). The north end of the arch was footed in part on Iron Age Lintel D12:34, which remained in

⁴⁶ Within this debris, in A23:1, were a number of partially restorable ceramic lamps, such as V1612, 1613, 1616, 1617, 1618, 1627, 1638, 1639, 1640, 1649, 1656, and 1658.

⁴⁷ This same combination of threshold and doorsill is seen at Buṣrā leading into Room 2 (Wilson and Sa'd 1984: pl. 1:3).

Table 3J. Pottery and Artefacts in Room 602.

Locus	Finds	Reg. No.	Characteristics
D12:3,4,5,15	910 ceramic sherds		
	cover	V615	
	jug	V634=TJ 142	intact, spout missing ⁴⁸
	2 small jars	V637,687	
	medium jar	V642	
	Gaza amphora	V603	
	storejar	V602	gray ware
	ivory die	TJ 238	drilled
	wick tube	TJ 145=G1	glass
	tessera	TJ 215	glass and gold
	animal bones		

place spanning ground floor Doorway D between Walls 7023 and 7024 (Daviau 2003: fig. 8.17). In the midst of an enormous accumulation of rockfall which fills the underlying rooms (R712, R713), Wall 7023 served as the most stable support for the weight of the arch.

Due to the size of Room 602+603, the construction sequence on the west (R602) and east (R603) sides of Stratum-VII Wall 7023, as well as the distribution of artefacts on the Stratum-III floor, this area is best described as two separate units. The earliest surface (D12:15) in use in Room 602 was a beaten earth floor distinguished by several ash pockets and clay lenses. At the west end, there were scattered cobblestones, fragments of a tabun, and mendable ceramic sherds in place along Walls 6006 and W6013.

Room 603 (Figs. 3.34, 3.35)

In Room 603, a considerable amount of fill (D21:19, 20) and packed soil was installed above the Stratum-VII collapse to form the sub-floor makeup. Soil Layers D21:19+20 appear to mark the construction level for Wall 6008 on the east, and for the reconstruction of Wall 6005 on the south. Evidence for this interpretation consists of the presence of several mendable Umayyad style vessels. A hard-packed surface (D21:17) is preserved in patches across Room 603. Whether this was a use surface or a second construction platform remains unclear, although it was certainly below the level of the support stones for Doorsill D21:4.

⁴⁸ The loss of the spout could have been the result of excavation, although all excavated soil was sifted.



Figure 3.34. Collapsed wall stones and voussoirs above Rooms 617 and R603.



Figure 3.35. Room 603 with entrance into Room 604 in upper left corner.

Smashed *in situ* on Surface D21:17 in the southeast corner of Room 603 were the neck and shoulder of a jug with incised and punched decoration (V649),⁴⁹ and to the west there was the base of a wine glass. Along with these Stratum-III remains, there was a limestone boulder mortar (D21:18); this artefact is Iron Age in style although impossible

⁴⁹ This is only one of two incised vessels recovered during excavation; the second is a lantern (V670) from R604. All other vessels with surface treatment were painted.

to date, since it may have been reused.⁵⁰ This same surface (D21:17) also contained sherds of a mould-made lamp, a stone bead, a bronze fragment, and a copper earring, all mixed with Iron Age pottery and artefacts, including a basalt mortar and pestle.⁵¹

Although severely damaged by falling stones from the surrounding walls, the earliest surface (D21:3=D22:4) in use with Doorway CC was marked by clay lenses and ash. Present in the east end of Room 603 were cobblestones within Soil layer D21:3 which may have been part of the floor material. There is also a socket stone (D22:5, TJ 228) located adjacent to Wall 6008, north of Doorsill D21:4, that was embedded in the floor surface (Fig. 3.35). Within the upper floor surface and overlying debris layer (D21:3=D22:3), there were mendable ceramic vessels, an intact lamp (TJ 186), and a small number of artefacts and raw materials; most notable was a large lump of sulphur (Sample 3).

The doorway from Room 603 to other parts of the upper storey may have led north into Corridor 611, above Floor Slabs D22:14.⁵² The upper courses of the north wall (W6013) collapsed into the corridor, covering the stone floor and removing any architectural remains of a north wall for Corridor 611.

*Room 604*⁵³

A third room along the south side of Building 600 occupies the southeast corner. North Wall 6014 and outer South Wall 6005, both repaired above Stratum-VII walls (W7024 and W7026 respectively), frame this upper storey room (above R713). Wall 6005 appears to be a combination of reused Iron Age wall stones, which were roughly-dressed and chosen for their shape, and of small (*ca.* 0.25 m long) rectangular stones laid in two or three horizontal courses and packed with mud mortar. These courses may have served to level the wall between the lower, Iron Age wall used as a foundation and the larger stones which were used in the upper courses for strength. Due to the limits of excavation,

⁵⁰ Few Early Islamic period food processing tools have been published to date (see below, Chapter 13) so that no corpus with the full range of tools and equipment can be cited for comparison.

⁵¹ Fragments of an iron chisel, which may have been used to dress wall stones, such as Doorsill D21:4, Threshold D21:6, and the voussoirs in Room 604, was embedded in D21:20. Because its stratigraphic situation was contaminated, Chisel TJ 2054+2055+2083 was included with the Iron Age artefacts (Daviau 2002:99–100; fig. 2.56:1).

⁵² These stone slabs form the ceiling of Corridor 617 on the lower storey.

⁵³ The description of Room 604 is a revised and expanded version of the unpublished field report written by Martin Beckmann (1995).

Table 3K. Pottery and Artefacts in Room 603.

Locus	Finds	Reg. No.	Characteristics
D21:3,17,19, 20+D22:4,5	572 ceramic sherds		
	small bowl	V667	miniature
	2 bowls	V665,666	plain
	cooking casserole	V619	
	2 casserole covers	V611,612	
	jug	V649	incised and punched
	channel nozzle lamp	V1602=TJ 186	intact
	candlestick lamp	V1601	ceramic
	2 jar stoppers	TJ 163,168	ceramic
	stone bead	TJ 2058	
	bronze fragment	TJ 1928	
	copper earring	TJ 1985	
	lump of sulfur	D22:4/Fld #3	
	glass shards		
	socket stone	TJ 228	limestone

the east wall (W6002) was only exposed above the Stratum-III floor levels in Rooms 604 and R605.⁵⁴ In view of the fact that East Wall 6002 appears to be located further east than Iron Age Wall 7025, it is important to note that it does bond with the upper courses of South Wall 6005. Along the north side of Room 604, Wall 6014 was built above Wall 7024, where it abuts the west face of Wall 6002. Wall 6014 extends west, and abuts Wall 6008, the east wall of Room 603; the wall line then continues its trajectory as Wall 6013.

Within Room 604, a fill layer (D31:30) covered the Iron Age collapse and served as the foundation for several features of the new room. These features provide evidence for the construction of an arch that supported the ceiling. Two stone piers, one on the east (D31:23; Fig. 3.36) and one on the west (D31:22), served as supports for an arch that spanned the length of Room 604 (5.00 m). Each pier is founded on fill layer D31:30; each of these piers stands approximately 0.85–1.10 m in height and consists of 3–4 courses of medium to large size (0.50–1.00 m) squared boulders in header and stretcher construction.

The remains of the longitudinal arch consisted of 15 voussoirs (Fig. 3.37). Fairly regular in size, these voussoirs are represented by Voussoir

⁵⁴ The situation in Room 606 was different in that the Early Islamic construction features of East Wall 6002 were evident and fully exposed from the lower floor up to ceiling level.



Figure 3.36. Room 604 with arch Pier D31:23 in background and Iron Age Wall 7025 visible in the centre of the room.

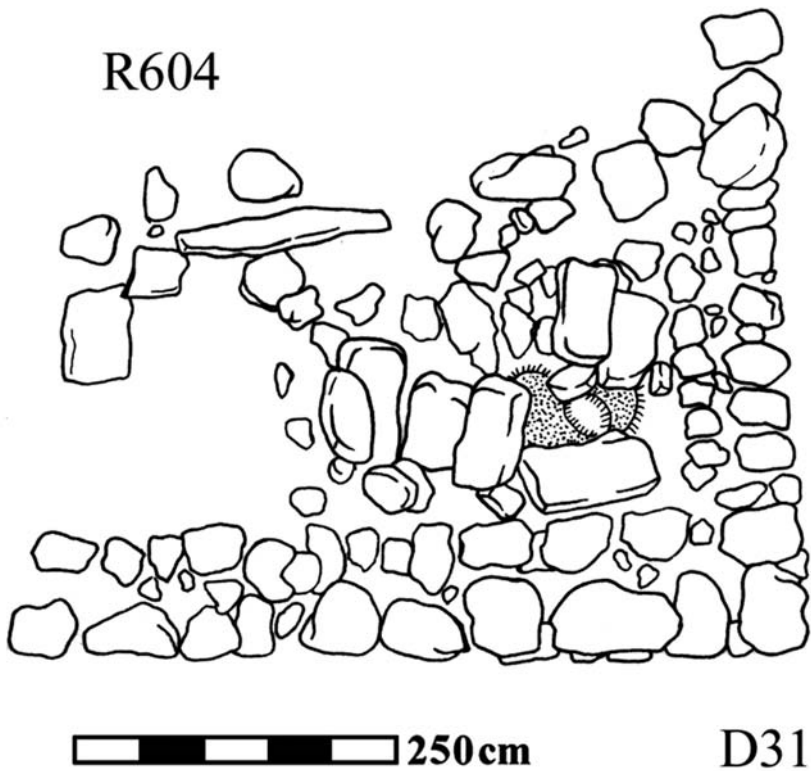


Figure 3.37. Voussoirs and ceiling slabs collapsed in place in Room 604.

V-1, which is trapezoidal in shape and measures 0.38 m in width, 0.55 m in length, and is 0.28–0.35 m in thickness. The arch built of these voussoirs supported at least 18 ceiling or vaulting slabs⁵⁵ which were in the range of 0.30 × 0.40 × 1.50 m in size and extended from the central arch to the side walls of the room.

The floor (D31:24) of Room 604 was founded on additional fill layers (D31:27,28) that contained both Iron II and Early Islamic period sherds. In the southeast corner of Room 604, between Pier D31:23 and Wall 6005, there is a flagstone pavement (D31:26) at the same approximate level (925.25–925.30 masl) as the top of beaten earth Floor D31:24. This pattern of a stone pavement along the east side of the room is also present in Room 605 and in the northwest corner of Room 601. The surface of Floor D31:24 was poorly preserved due to Early Islamic period collapse which resulted in pottery smashed *in situ* and contamination with Iron Age sherds in the underlying fill layers (D31:27). Also present in the soil of Surface D31:24 was a stone block (0.35 × 0.57 × 0.22 in height) with a shallow depression in its upper face. In its present condition, this feature could have been used as a trough or an industrial installation. It was found upside down on loose soil and had burn marks on one side. Additional collapse was evident in superimposed Soil Layer D31:21, which contained fallen wall stones, voussoirs and ash pockets.

Table 3L. Pottery and Artefacts in Room 604.

Locus	Finds	Reg. No.	Characteristics
D31:21,24	2,472 ceramic sherds		
	2 bowls	V672,673	
	bowl	V655	painted
	casserole	V609	
	cover	V613	casserole
	lantern	V670	ceramic, fenestrated
	storejars	V671,1512, 1513	
	strainer jug	V1511	
	basin	V677	ceramic, small, utilitarian
	pestle	TJ 1875	

(Table 3L continued on next page)

⁵⁵ More than 10 ceiling slabs were recovered, registered, and measured.

Table 3L (*cont.*)

Locus	Find	Reg. No.	Characteristics
	2 grinders	TJ 1852, 1861	basalt
	millstone	TJ 1849	basalt
	metal object	TJ 1874	iron fragment
	metal pin	TJ 1873	iron
	metal rod	TJ 1888	bronze
	stone stopper	TJ 1869	
	stopper	TJ 1886	ceramic, reworked
	coin	TJ 1862	bronze, Seleucid

Evidence for an Upper-Storey Room

Only minimal evidence in the form of the heavy ceiling slabs, glass shards, 46 tesserae, and a basalt rotary millstone (TJ 510) exists to suggest an upper-storey room. Due to the limited finds and the severe disturbance during modern times, no conclusive argument for a third storey can be put forth. The only exit from Room 604 was through Doorway CC into Room 603 and from there into Corridor 611, which led to Stairway D23:43 on the west, or to Doorway DD into Room 605 on the east.

Room 605

One of the best preserved upper-storey rooms is Room 605 (Figs. 3.28, 38). This small room, located in the middle of the east side of Building 600, is somewhat below (*ca.* 0.20 m) the level of the rooms along the south side. This is due in part to the level in Room 605 of a series of underlying layers of Stratum-VII debris (D32:43–49). These layers were stabilized by the presence of a pillar or pier wall (D32:48) standing in the middle of the Stratum-VII room (R715). The top of this pillar was covered with a soil layer (D32:42), which contained a very large boulder, probably the topmost stone of Pillar D32:48. It is this layer that represents the floor level of Stratum-III Room 605. In the eastern third (1.30 m) of the room, there was a flagstone pavement (D32:38; Fig. 3.38) whose western edge corresponds to the line of the Iron Age II outer wall (W7025, Daviau 2003: fig. 8.17) exposed only in Room 613, below Room 604.⁵⁶ Along the east edge of pavement D23:38 is a row

⁵⁶ This is strong supporting evidence that the eastern wall (W6002) on the upper-storey level was indeed constructed further east than the Stratum-VII wall line.



Figure 3.38. Room 605 looking east with flagstone Pavement D32:28 in background.

of stones (D32:36) that protrudes from the west face of Wall 6002 and appears to be the footing for the Stratum-III wall.

The south wall (W6014) of Room 605 abuts both Wall 6002 and Wall 6008, the western wall of Room 604 to the south. On the west, the wall construction is quite complex, because here there are at least two steps (D22:21) that lead up to the top of Blocking Wall 6027, where one course of stones continues the line of upper-storey Wall 6008 (Fig. 3.39). The stones of Wall 6008 are in place over Ceiling Slabs D22:14, clear evidence that the entrance to Room 605 was built after the ceiling in the central room, or at least over Corridor 617, was in place. At this point, there is a threshold stone built into the wall, indicating clearly that there was a doorway (DD) leading out of Room 605 into Room/Corridor 611 on the upper storey. The east end of the staircase was built above a support wall or foundation (W6011), and was framed on the north by Wall Stub 6022. This staircase was the only access into Room 605. Each step was built of two or three rectangular stones fitted in place with chink stones. The presence of several large nails in the debris above the second step (D22:19) suggests the use of wood in the construction of the upper storey superstructure or in the roof.

The north wall (W6010+6001) shows signs of extensive repair, described in part in our discussion of Room 606, above. This corresponds



Figure 3.39. Stairs D22:21 leading up from Room 605 into Corridor 611.

Table 3M. Pottery and Artefacts in Room 605.

Locus	Finds	Reg. No.	Characteristics
D32:22,24,26, 32,33,42,43	cup	V629	painting, interior
	4 bowls	V624,625,626,627	painting
	krater	V628	
	casserole	V620	
	cooking pot	V657	red ware
	medium jar	V640	painting
	jug	V643	crisp gray ware
	jug	V650	spout; neck strainer
	bottle	V659	
	jug	V684	cylindrical
	lamp	V1646	mould-made
	ostrakon	TJ 359	incised
	shell	TJ 590	inscribed ostrich egg shell
	coin hoard	TJ 1036–1070	copper

with the construction of the eastern outer wall (W6002), which was built of small rectangular stones packed with mud mortar and capped with a very large, well-hewn boulder. The four walls of Room 605 form a small room, measuring 2.45 × 4.70 m (including the stairs).

The pavement covering the floor in the eastern third of the room was sealed against by several soil layers (D32:43,42), suggesting a fill packed in place over the Stratum-VII collapse. It was in Soil Layer D32:42, just below the western edge of the flagstone pavement, that a small hoard of 35 post-reform copper coins had been buried in a cot-

ton bag (Chapters 12, 13 below). The coins themselves were in small stacks and the residue of the cotton bag was visible, adhering to the top and outermost edges of the coins.⁵⁷

The principal feature of Room 605 in Stratum III is a stone-lined cooking area or fire pit (D32:32) constructed on a beaten earth surface (D32:33) against north Wall 6010. A heavy ash accumulation surrounded the fire pit and ash pockets stained the soil (D32:26,24) to the south. Associated with the evidence for domestic activities is an important collection of painted bowls and kraters.

The stone-lined cooking area (D32:32) was flanked on the west by two large, well-dressed stones (D32:31) stacked one on top of the other and sealed together with mortar. The presence of these stones and a reused column/pilaster drum (D32:30; Fig. 6.4.2) suggests that the builders of this room made extensive use of architectural elements from an earlier building.⁵⁸ The destruction of Room 605 is marked by a series of deep soil layers (D32:20,17,12,10,8,7) filled with collapsed wall stones, glass shards, and pottery sherds. Some of the ceramic vessels that were broken on the stairs leading down into Room 605 appear to mend with those recovered from the cooking area and from Surface D32:33. This distribution pattern is evidence of the damage done when the walls of the room collapsed, scattering the ceramic sherds in all directions. Of significance is the presence of Sherd TJ 359, a small triangular ceramic fragment with a text inscribed in Arabic (see Chapter 10, below)

ROOMS ON THE WEST SIDE

Two upper-storey rooms (R608, R609) were located along the west side of Building 600 to the north of Room 601 (Figs. 3.28, 3.40). Both rooms were built up against the outer west wall (W6004), which retains evidence of extensive repair work in these rooms during the

⁵⁷ The stacks were leaning on an angle but some of the stacks appeared to be complete with the top and bottom coins still retaining cotton fibres on their outer surfaces (Fig. 13.4).

⁵⁸ Another interpretation of the same evidence might be that Room 605, as well as Room 606 on the lower floor level, were redesigned at some point during Stratum III. This would help to account for the extensive rebuild of Walls 6010+6001, and the fact that Room 605 is on a different level (*ca.* 0.59 m lower) than upper-storey Corridor 611.



Figure 3.40. Collapsed stones over Rooms 608 and R609.

reconstruction of the building. This is seen most clearly in the outer wall masonry, where a boulder-and-chink, Iron Age wall (W7031) had been repaired and then capped with boulders that held in place several courses of smaller stones packed with mud mortar. This construction technique was also used in the outer south wall (W6005; Fig. 3.5) and in the Islamic structures at Pella, as well as elsewhere in Transjordan (Lewcock 1984:135).

Room 609

Room 609 is the middle room on the west side between Room 601 to the south and Room 608 to the north. The construction history of Room 609 is similar to that of Room 601, in that the Iron Age collapse was left in place in the lower storey, and a new upper-storey room was built above it. Measuring only *ca.* 2.10 m in width and 3.70 m in length, Room 609 is the smallest enclosed space in Building 600. This room shares a party wall (W6016) with Room 601 to the south. Although the east end of this wall has collapsed (D13:17), there remains sufficient

evidence to suggest that there was a doorway (GG) between Room 609 and R601 at this point. The eastern wall (W6029) of Room 609 is also severely damaged, making it difficult to determine its exact association with Wall 6006, which forms the eastern frame of Doorway GG.

The function of the north wall is even more difficult to understand. Here a wall line of large semi-hewn boulders appears to form a partition wall (W6017), which separates Room 609 from a small alcove in the southwest corner of Room 608 (see below). Wall 6017 is in line with a row of very large rectangular stones (D13:60),⁵⁹ which may have served as supports for the floor above the underlying debris, or as a walkway between Rooms 609 and R608.

Above the Iron Age collapse under Room 609, a layer of rockfall and soil (D13:31) was used to level out the underlying debris (Daviau 2003:357). The Stratum-III floor level is probably represented by a packed soil layer (D13:15), which contained patches of *nari*. Unfortunately, the surface was so badly damaged by fallen wall stones⁶⁰ that it is impossible to recover uncontaminated Stratum-III contents associated with this room.

The soil of Surface D13:15 seals up against four narrow flat-topped stones that constitute the semi-circular rim of Installation D13:12. At their north end, the westernmost stones bond with West Wall 6004 and Partition Wall 6017, while on the south they rest on the top of Lintel D13:13 (Fig. 3.41), a Stratum-VII feature which remained in place over Doorway E between lower-storey Rooms 714 and R716 (Daviau 2003: fig. 8:17). Encircled by Installation D13:12 is a soil layer (D13:11) that may in fact be a continuation of the underlying soil (D13:21). The function of the stone circle itself remains unclear, although it may have been related to the drain pipe (D13:22) in Room 608 (see below).

Layers of collapsed wall stones and soil (D13:10, 5), mixed with Iron Age artefacts, filled Room 609. Architectural features, such as doorjambs, voussiors, and lintels were piled up in the western rooms, obliterating their relationship to the rest of the upper-storey rooms, and modern disturbance added to the contamination.

⁵⁹ Stones D13:60 are in place above Iron Age wall 7017 (D13:51). With a length of *ca.* 1.50 m, they extend north as far as Wall 6017. These long stones are slightly irregular, with a width in the range of 0.25–0.52 m and a thickness of 0.18–0.21 m.

⁶⁰ A large number of stones may also have been added to the debris in Rooms 609 and R608 during modern times, when clandestine digging was undertaken in Hall 607 to expose the mosaic floor.



Figure 3.41. Room 609 with Lintel D13:13 in centre right.

Table 3N. Pottery and Artefacts in Room 609.

Locus	Finds	Reg. No.	Characteristics
D13:10	210 ceramic sherds		
	2 millstones	TJ 1190; 1 unreg.	upper, loaf-shaped
	bowl	TJ 1189	basalt
	pounder	TJ 1240	chert
	socket	TJ 1241	pumice bow drill
	knife blade	TJ 1234	iron
	mortar	TJ 1262	basalt

Room 608 (Fig. 3.43)

Immediately to the north of Room 609 is Room 608. Although it is clear that this room in the northwest corner of Building 600 was an integral part of the second storey, its occupation history is difficult to unravel because it was so severely disturbed by the build-up of debris. This debris came from the disturbance of Central Hall 607, as well as from the cleaning of Cistern D15:2 to the north that resulted in a dump of soil and Iron Age pottery (D14:1) against the northwest corner of Building 600. With erosion, some material from the dump flowed into Room 608.

In Room 608, the Stratum-III repairs to the north and west outer walls (W6003, W6004) can be seen clearly on their interior faces. These walls served as the major support walls in this room, along with Wall 6021, the western wall of Staircase D23:43. In the northeast corner, Stratum-III Lintel D23:41 was *in situ*, although it is uncertain whether

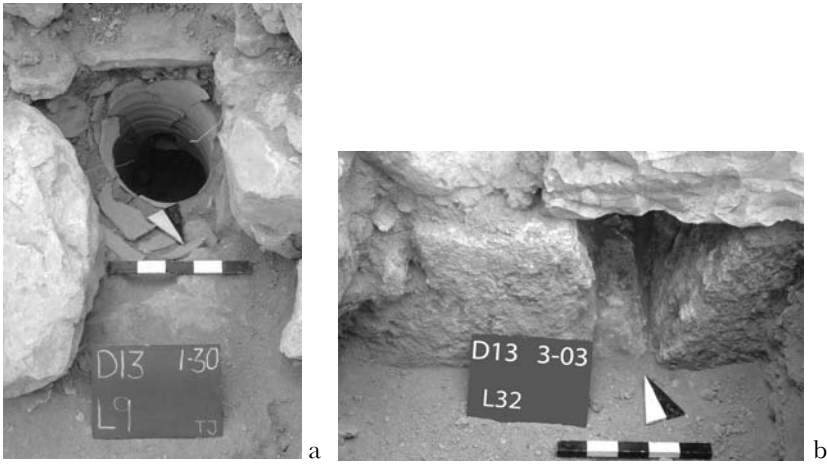


Figure 3.42. Installation D13:12, a) cylindrical drain pipe; b) channel through Partition Wall 6023.



Figure 3.43. Room 608 looking north with ceiling slabs protruding from West Wall 6004 and North Wall 6003.

it served as the support for the eastern wall of Room 608. Damage to Wall 6021, and its continuation as Wall 6029, makes it difficult to determine the relationship of this wall line with Partition Wall 6017 on the south. Clearly, there had to be a doorway through Wall 6029 to gain access to Staircase D23:43 from these western rooms.

The most complex feature of Room 608 consists of two associated installations, a drain pipe within Installation D13:22 surrounded by a ring of stones (D13:12) and flanked by Wall 6017, and secondly, a rock-cut channel (D13:32) through ashlar Partition Wall 6023 (Fig. 3.42a, b). In places along its length, Wall 6017 is preserved five courses high above Stone ring D13:12, the stones of which bond in two places with Wall 6017 on its south side. Within the enclosure of Installation D13:22, there is a soil locus (D13:11) south of Wall 6017, which contains a thin-walled, cylindrical vessel (V653) set at an angle of 130° off the horizontal (Fig. 3.42a). This vessel has a preserved length of 47.0 cm and a diameter of *ca.* 20.0 cm (Fig. 8.19:1) and probably served as a drain pipe. Additional sherds of the vessel itself were embedded in the loose soil filling the pot (D13:21). Below the point where V653 extends southward, the lower end of the drain was covered with mortar. The mouth of this drain pipe appears to be in line with a rock-formed channel (D13:32; Fig. 4.2b) which runs through the stonework of Partition Wall 6023. At this point, the ashlar stones have opposing edges cut on an angle to allow for water to drain through the wall and flow toward the drain pipe (V653). Although it is clear that these installations were in use during the final phase of Stratum-III occupation, their exact function remains unclear; was this a system for draining water from the roof, or was it a latrine?

Clear evidence for major structural supports for the associated floor in Room 608 is seen in the reuse of Iron Age Pillar D13:62 and the positioning of 11 stone floor slabs (D13:30a–g; 58a–c, and 59), which were keyed into the west, north, and east walls (W6004, W6003, W6021, respectively).⁶¹ These slabs, along with two very long

⁶¹ Along the west wall, stone D13:30a measures L(ength) 0.82, W(idth) 0.57, T(hickness) 0.33 m, while stone 30b (L 0.25, W 0.23, T 0.19 m) and 30c (L 0.44, W 0.56, T 0.15 m) are much smaller (Fig. 3.28). Just to the east of the northwest corner, there are two stone slabs protruding from the north wall that are superimposed; the lower stone is 30d (L 0.32, W 0.50, 0.20 m) and the upper one is 30e (L 0.23, W 0.37, T 0.12 m). The remaining three stones are further east, 30f (L 0.62, W 0.56, T 0.24 m), 30g (L 0.31, W 0.40, T 0.28 m), and D13:59 (L 0.78, W 0.65, T 0.10 m). Protruding from W6021 on the east, three stone slabs (D13:58) are preserved; 58a

stones (D13:60a+b)⁶² which rest above Wall 7017, are evidence of the technique used to support the upper-storey floor above the unstable fill in lower Room 616.⁶³ In the centre of the room, Stratum-VII Pillar D13:62 also served as a major support for the floor; it was directly linked to Stone Slab D13:30a, which itself may have been a Stratum-VII lintel⁶⁴ left in place over a lower storey doorway (comparable to Lintel D13:13 over Doorway E, and Lintel D23:41 over Doorway A; Daviau 2003: fig. 8.19+CD-ROM).⁶⁵ The floor surface itself (D13:24) was completely destroyed by the collapse (D13:16, 6; D14:12,13,14) of the stone masonry from the surrounding walls. Except for one channel nozzle lamp (V1629) and a few broken roof tiles, no characteristic Stratum-III artefacts were recovered; the collection of 953 pottery sherds was contaminated with Iron Age pottery and a handful of Iron Age ground stone tools.

In the southeastern corner of Room 608, there was an area of wall collapse that obscured access to Room 609. In the southwestern corner, Wall 6023, north of drain D13:22, extends east only 1.65 m, while Wall 6017 is 2.50 m in length. Since both Rooms 608 and R609 appear to have been 3.70 m in length, there was probably a wide doorway at the east end of Wall 6017 that gave access into Corridor 611. For these western rooms, the only access to the upper-storey on the east would be rather indirect, either from the area at the top of Stairway D23:43, through the room above Hall 607 or from Corridor 611. The position of a room (R610) over the southern sector of Hall 607 remains hypothetical, based in large part on the presence of Arch D23:7 in the lower hall that was designed to support a ceiling.

(L 1.14, W 0.58, T 0.08 m), 58b (L 0.70, W 0.42, T 0.12 m), 58c (L 1.02, W 0.50, T 0.18 m). Length is not a precise measurement, because a section of each stone is embedded in the wall masonry.

⁶² The eastern stone (D13:60a) measures L 1.48, W 0.25–0.45, T 0.21 m, and the western stone (D13:60b) measures L 1.55, W 0.28–0.52, T 0.18 m.

⁶³ The Iron Age phase of Room 616 was assigned room number 716 (Daviau 2003: fig. 8.16).

⁶⁴ In size, Ceiling Stone D13:30a (1.03 m in length) is comparable to Lintel D23:41 (1.10 m) over Doorway AA and may have spanned a doorway between Room 716 and another room to the north in the Stratum-VII Building. However, excavation did not remove the debris adjacent to Stone D13:30a, with the result that this hypothesis could not be tested. In the final assessment of Building 700, no division of Room 716 was proposed by this author (Daviau 2003:348–349).

⁶⁵ For a comparable construction, see Pier Wall 7028 in Room 718 (below Room 603; Daviau 2003:362–363; figs. 8.20–21).

The collapse of the ceiling (D13:55,56) into lower-storey Room 616 brought down not only the ceiling stones, but also a number of glass shards, animal bones, ceramic basin sherds, one upper loaf-shaped basalt millstone, and bits of charcoal. These finds are the meagre remains that constitute the evidence for occupation on the upper storey. If, however, Room 608 was the main entrance into Building 600, it would not be surprising that there is a paucity of domestic objects, because it would have been a high traffic area.

CONCLUSIONS

The standard Near Eastern courtyard style house, so common at Nabataean⁶⁶ and Byzantine period sites in the Levant, continued into the Early Islamic period (Petherbridge 1995:199) and is well represented in the houses surrounding the *qasr* at Hallabat (Ghrayib 2003:67–68; fig. 6). In most instances, the central hall or court is surrounded on three sides with smaller rooms. A more complex version of this plan is also represented in palace architecture, for example, in Building F on the ‘Amman citadel (Almagro *et al.* 2000: figs. 2, 3).

At Tall Jawa, the reuse of the Iron Age foundations of Stratum-VII Building 700 put restrictions on the choices which the builders made when planning Building 600. Most problematic was the design of the central space, characterised by Hall 607 on the lower floor, and the proposed upper storey room (R610) above it. The design also had an impact on the relationship of Hall 607 to the most ornate room in the building, namely Room 606. The presence of crown window pane glass in the debris of Rooms 606 and R605 on the east suggests that it was Room 605 and the upper-storey room (R620) over Room 606 that had windows. Apparently, the central hall was not able to provide enough light for these rooms, since they were not on the same level as R607 and the archaeological record is equivocal in support of an unroofed area above Hall 607.

The most highly decorated room was Room 606, with its painted plaster and mosaic floor; this room probably served as a reception area

⁶⁶ Good examples of this house type have been uncovered at Petra, in the ez-Zantur district (Kolb and Keller 2002: fig. 1), at Khirbat al-Mudayna on the Wadi ath-Thamad (Daviau *et al.* 2000: fig. 9), and at Mampsis in the Negev (Negev 1988a: plan. 6).

for the male members of the household. Utilitarian ceramic vessels were noticeably absent, whereas there was a large number of lamps. In contrast, upper-storey Room 605 with its oven appears to have been a kitchen or women's workroom. In view of the presence of this cooking area (D32:32), the modest coin collection found buried under the floor surface may have been the hoard of a woman who spent her time cooking in this room. Several other upper-storey rooms may also have had a utilitarian function, especially Rooms 601 and R602–603, where both bitumen and sulfur were present along with a large variety of ceramic vessels and lamps.

The fact that the builders did not empty the Iron Age rooms on the south side of Building 700 meant that they had to repair and utilize Stairway D23:43 to gain access to the upper-storey rooms on three sides of Central Hall 607. The relationship of Corridor 611 to the rooms on the south and Room 605 on the east is not completely clear due to the pattern of collapse. So too the exact size of the upper-storey room (R610) over the central hall remains in doubt. Finally, the position of the main entrance to the building remains uncertain, although Room 608 on the upper storey is a good candidate. While the distribution of collapsed structures to the north and east suggests that there were additional buildings of the same date as Building 600, none of these were excavated, leaving Building 600 as a unique example of Early Islamic architecture at Tall Jawa.

ASSOCIATED INSTALLATIONS

Cistern D15:2

A bell-shaped cistern (D15:2 Fig. 3.44), covered by large boulders at ground level,⁶⁷ was located outside the northwest corner of Building 600 (Daviau 2003:370–372). The neck consists of five courses of large chert boulders, a feature which this cistern shares with Cistern E64:13 located in Iron Age Building 300 to the north (Daviau 2003:

⁶⁷ These stones may have been put in place in modern times to protect children and animals. The mouth of the cistern is located in Square D6, but its interior extends under Squares D5 and D15. In 1992, Battenfield entered Cistern D15:2 to document its size, shape and features. However, these tasks were completed only in 1994 due to presence of a mortar shell in the cistern.

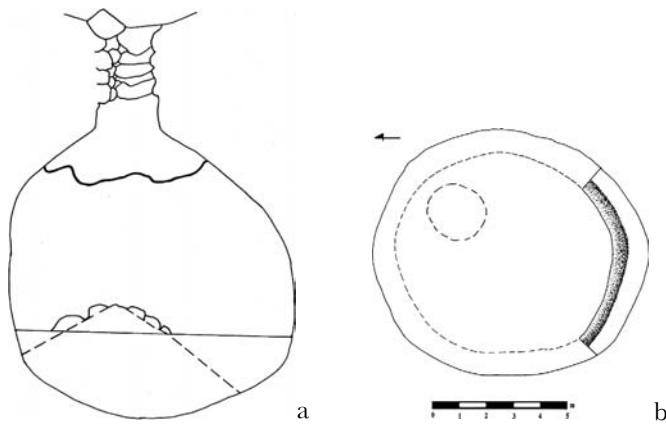


Figure 3.44. a) Section of Cistern D15:2; b) Plan of Cistern D15:2.

fig. 7.23+CD). Below the level of the boulders, the bedrock was carved to form a cylindrical neck which extends a further 0.80 m. Below the neck, the wall of the cistern flares out to form an oval bell, 5.00 m long on the north-south axis and 4.43 m wide on the east-west axis. From the mouth to the base, the cistern has a depth of *ca.* 5.00 m. The preserved edge of a plaster coating (0.02–0.03 m thick) on the lower wall surface extends from the base to a point 3.10 m below the mouth; the plaster itself was in fairly good condition, flaking off only at the upper edge. The surface of the plaster was discoloured with water stains which indicate the water levels in the cistern at various times in the past. Tooling marks were not visible on the lower wall of the cistern itself, because of the presence of the plaster.

A feature that this cistern has in common with Cistern E64:13 is a bedrock ledge or shelf left in place just above floor level (Fig. 3.44b). This shelf runs 3.70 m around the south side of Cistern D15:2 at the level of the water remaining in the cistern in June 1994.⁶⁸ The centre of the cistern was covered by a cone of soil and fallen stones that had accumulated since it was last cleaned out in modern times.⁶⁹

The construction and original use of Cistern D15:2 was most probably during the late Iron Age (Stratum VII). This suggestion is based

⁶⁸ In 1994, the water level was considerably lower than in 1992, making it possible to identify and draw the ledge around the south edge of the cistern.

⁶⁹ Cistern D15:2 was cleaned by the relatives of the current owner, Mr. Hamad Talafieh.

on the numerous features that this cistern shares with Cistern E64:13 from Stratum VIII, and on the large amount (1249 sherds) of Iron Age pottery in the dump (D14:1) that represents the contents of the Cistern D15:2.⁷⁰ That it was reused during the life of Building 600 is most likely, given its proximity to B600 and its value as a source of water.

Structure 625 (Fig. 3.45)

To the northeast of Building 600, there are two small structures, one oval in shape (B625) and the other (B630) almost square. At the end of the final season, Structure 625 was cleaned and examined briefly in an attempt to determine its function and relationship to Building 600. Structure 625 consists of a single room, surrounded by a boulder-and-chink wall. Only four loci were assigned; the structure itself (D34:3), the uppermost debris and soil layer (D34:0.5), the oval wall line (W6030=D34:1), and one subsurface soil layer (D34:2).⁷¹

Wall 6030 consists of one row (0.70–0.90 m thick) of small, medium, and large boulders packed with cobble size chinkstones. The wall line surrounds an oval space, measuring 2.75 × 1.85 m, with a single

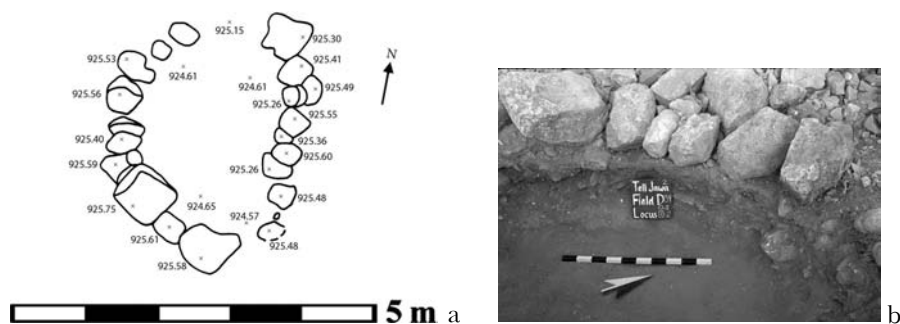


Figure 3.45. a) Plan of Building 625; b) Interior of Building 625 outside northeast corner of B600.

⁷⁰ The only portion of Dump D14:1 excavated in 1994 was the accumulation against the outer walls (W6003, W6004). Thus the sherd corpus is only a sample of the contents. The sherds themselves are predominantly Iron Age, although the dump is contaminated by later pottery, due both to its exposed location and the continuous use of the adjoining tell surface for agriculture.

⁷¹ All loci were assigned to Square D34, although the structure is actually located at the point where four squares intersect (D34, D44, D33, and D43).

opening (*ca.* 1.60 m wide) on the north. Although the base of the wall was not reached, three courses were exposed for a preserved height of 0.75–1.18 m. Structure 625 was filled with soil (D34:2) containing a high concentration of ash, pebbles, and crumbling mortar. Also present were a handful of glass shards and tesserae. The uppermost debris layer (D34:0.5) consisted of ash-filled soil, pebbles and cobble-size stones; this same ashy soil was scattered around the outside of the structure as well. Against the inner face of Wall 6030, the ash was very compact and had the appearance of mortar. The presence of mortar and plaster fragments in this installation, so near to Building 600, suggests that it was a mortar processing pit, where bedding mortar used in Rooms 606 and R607 was prepared. The excavator, S. Thibodeau, is of the opinion that water mortar,⁷² an impermeable mortar formed of ashes, clay, and lime, was prepared here for use during construction and decoration of the lower storey-rooms.

The oval shape of Structure 625 was very easy to construct,⁷³ and its location was also suitable for the mixing of lime and ash with water from the nearby cistern (D15:2). The fortuitous investigation of this small work area made a significant contribution to our understanding of the techniques employed in the construction and decoration of Building 600.

⁷² This type of mortar is described by Aurenche (1977:118, 70, 47).

⁷³ Within an hour, a local worker constructed an impressive perimeter wall surrounding one of our stone piles adjacent to Building 800 in Field C.

CHAPTER FOUR

THE MOSAIC FLOORS AND THEIR CONSTRUCTION TECHNIQUES

Debra C. Foran

INTRODUCTION

The construction and decoration program of the Early Islamic structure at Tall Jawa included mosaic floors that were both functional and decorative. Two rooms on the lower storey were paved with mosaics: Room 606 in the north-east corner of the building and the Central Hall 607 (see Chapter 3, above). In addition to a detailed description of each pavement, the following chapter will provide relevant parallels for the Tall Jawa mosaics, a discussion of the construction techniques used, and a catalogue of the mosaic fragments and isolated tesserae recovered during excavation.

THE CARPET MOSAIC IN ROOM 606

Description

The floor surface of Room 606 is divided in two by the footings of two low partition walls (Installation D33:28+34). Both sections of the surface (D33:29a+b) were paved with mosaic, covering a total area of *ca.* 14.05 m² (2.88 × 4.88 m; Fig. 4.1). The section of floor (D33:29b) east of the partition walls covers an area of approximately 4.32 m² (2.88 × 1.50 m) and is made up almost entirely of plain white limestone tesserae. The tesserae in the northern section are extremely worn, rounded, and smooth, taking on the appearance of wadi-washed pebbles. A plain white border, four tesserae wide, surrounds this section and runs along the edge of Installation D33:28+34. It then follows the eastern face of the northern stone (D33:28), continuing south to a point where it appears to have been partially removed or destroyed.



Figure 4.1. Room 606, looking west.

The pavement (D33:29a) in the main section of the room is decorated with a rectangular carpet located in the centre of the room (Fig. 4.2). As in the area of the eastern pavement, the western mosaic is bordered by two to four rows of large white tesserae. The border closely follows the perimeter of the room and runs along the west face of Installation D33:28+34. The central design measures approximately 1.70 (north-south) \times 1.86 m (east-west) and uses black, yellow, red, and white tesserae. A border of three rows of large white tesserae runs around this design and divides it in two. The larger of the two sections is outlined in red. This square area is then decorated with a grid of serrated simple filets¹ executed in black. The three triangular spaces on the western side of the pavement are filled with yellow triangles with red tips (Fig.

¹ The technical descriptions of the mosaics are based on those in *Le décor géométrique de la mosaïque romaine* (Balmelle 1985).

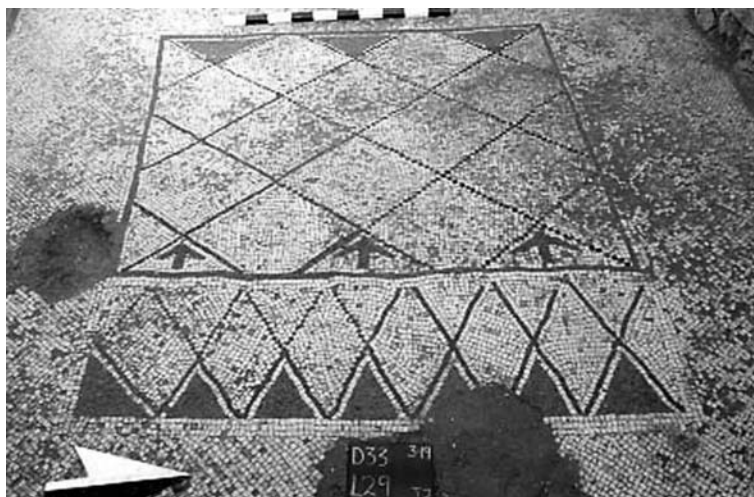


Figure 4.2. Rectangular carpet in main section of Room 606.

4.3a). The equivalent shapes on the eastern side are decorated with red arrows that point westward (Fig. 4.3b). The smaller section, to the east, consists of a row of poorly-planned tangent vertical lozenges formed by a simple red filet. The triangular spaces on the eastern side are filled with yellow tesserae, leaving a single row of white tesserae to separate the triangles from the lozenges (Fig. 4.4). This polychrome geometric panel sits in the centre of a larger pavement that is plain white except for a diagonal line of dark tesserae in the southwest corner (see Chapter 3, above).

Rough calculations estimate that more than 9,100 stone cubes were utilized to construct these mosaic floors (D33:29a+b). Approximately 640 small to medium size cubes were used per 1.00 m² and approximately 900 small (1.00–0.08 cm) tesserae per 1.00 m² were used in the design. In addition to the pavement itself, almost 10,000 loose tesserae were recovered from the fill inside this room, attesting to the possibility of a mosaic above Room 606 (Table 4A).

Table 4A. Loose Tesseræ from Room 606.

Locus	Small White	Small Red	Small Orange	Small Black
0.5	78	1		
9	1469	35	1	35
13	298	21	1	33
16	464	19	1	22
17	286	32	8	36
21	1818	70	8	98
24	58			1
25	1079	75	3	83
26	26	2		4
27	390	14	6	14
29	585	3	1	1
<i>Total</i>	6551	272	29	327

Locus	Medium White	Medium Red	Medium Orange	Medium Black
0.5	31		1	
9	145	4		7
13	172			3
16	309	15	1	21
17	423	19		27
21	286	26		64
24	277	3		1
25	144	9		6
26	89			
27	<u>25</u>	<u>8</u>		<u>6</u>
29				
<i>Total</i>	1901	84	2	135

Locus	Large White	Large Red	Large Orange	Large Black
0.5	7			
9	28			
13	40			
16	52			
17	127			
21	19			
24	48			
25	119	1		2
26	<u>32</u>			
27				
29				
<i>Total</i>	472	1	-0-	2

Total tesseræ = 9775+; white = 91.3%; coloured = 8.72% (A. Tempest totals; Ed.; see Chapter 3, above).

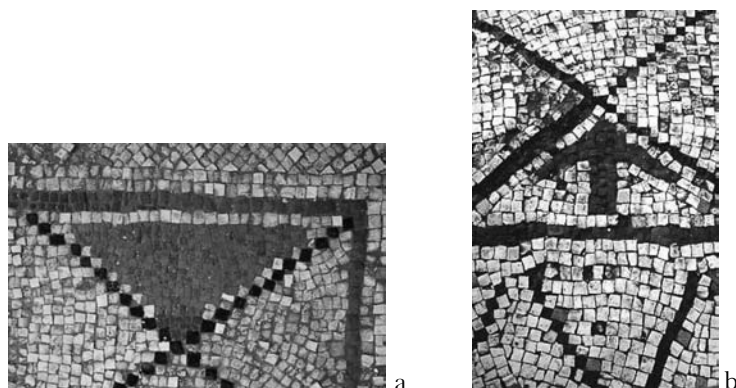


Figure 4.3. a) Triangles along west edge of carpet; b) arrows on eastern side.



Figure 4.4. Fringe along east side with triangles and lozenges.

Parallels

Floors with geometric designs appear throughout Transjordan during the Late Byzantine and Early Islamic periods (Daviau, in press). One of the most common designs is the grid pattern which was used as a border or to cover larger areas. The grid could be formed by one or more filets, serrated filets, or lines of tassels. The compartments of the grid were usually filled with florets or serrated squares. Examples of this design can be found at Khirbat al-Badiyya (Al-Muheisen 2006: fig. 11), Jarash (Barnes *et al.* 2006:296; fig. 10), Qusayr Amra, Quwaysma, Madaba, Siyâgha (Mount Nebo) and Dayr Ayn Abata (Zoara) (Piccirillo 1993: figs. 787, 487, 21, 181, and 726).

Yattir: The Byzantine church, excavated at the site of Yattir in the southern Judean Hills, is decorated with a complex geometric pavement. This floor contains two distinct construction phases indicated by two separate inscriptions. The initial construction of this monastic building dates to the end of the 6th century, while the second phase, when the nave was repaved, dates to the mid-7th century, more precisely 631/2 AD (Eshel *et al.* 1999:415–418). The numerous grid pattern panels in the nave mosaic (Fig. 4.5a) closely resemble those at Tall Jawa. This similarity can assist in dating the Tall Jawa mosaic and may suggest a possible use for this building.

Qaṣr al-Hallabat: The Early Islamic palace of Qaṣr al-Hallabat contains two rooms with well-preserved mosaic floors. The two pavements were clearly executed by different groups of artists (Piccirillo 1993:350–351; fig. 776). The mosaic in Room 11 is framed by a border consisting of a row of tangent lozenges. The style and layout of this border is similar to the eastern section of the Room 606 mosaic.

Jerusalem: The remains of three private Byzantine houses have been excavated on the southern slope of Jerusalem's Temple Mount. The southern house (Area III), although mostly disturbed, preserves a small polychrome mosaic (Fig. 4.5b). The floor of Room 3067 was decorated with a small, square, geometric pattern executed in red, orange, and black (Mazar 2003:209–211; Plan III.3). The design of this pavement only slightly resembles the Room 606

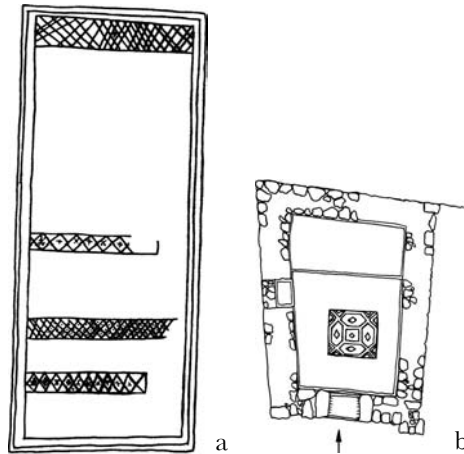


Figure 4.5. a) Khirbet Yattir floor, after Eshel, H. *et al.* 1999: fig. 4; b) southern house in Area III (Temple Mount excavations), after Mazar 2003:210, plan III.3; drawings by R. Warriner.

mosaic at Tall Jawa; however, both floors were conceived in the same manner. The rooms are of similar size and layout, and each is decorated with a small geometric panel placed in the centre of the floor and surrounded by a monochrome white pavement.

THE MONOCHROME MOSAIC IN ROOM 607

Description

The mosaic floor in Room 607 is composed only of plain white tesserae (Fig. 4.6). Originally, the pavement extended across the entire room, an area of approximately 21.38 m² (4.5 × 4.75 m); however, a large damaged area is now present in the centre of the floor. The arch springer, located along the eastern wall (W6007) of the room, sits on top of the mosaic, indicating that the floor was laid prior to the construction of this arch.

The pavement is framed by a border which is two to four tesserae wide. This border follows the perimeter of the room (Fig. 4.7), including the contours of the bedrock on the north. A portion of the border that runs along the south edge of the base of the western arch springer continues toward the centre of the pavement; however, it is now interrupted

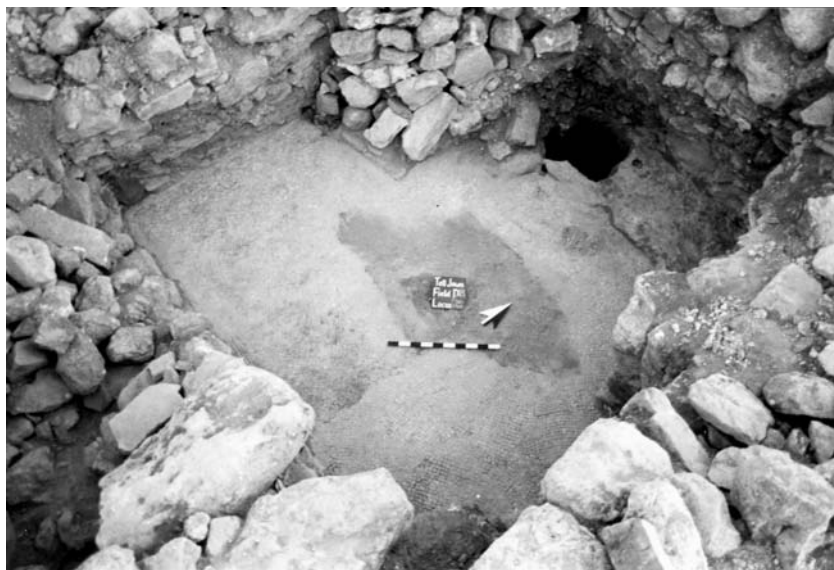


Figure 4.6. Central Hall 607 with plain mosaic.

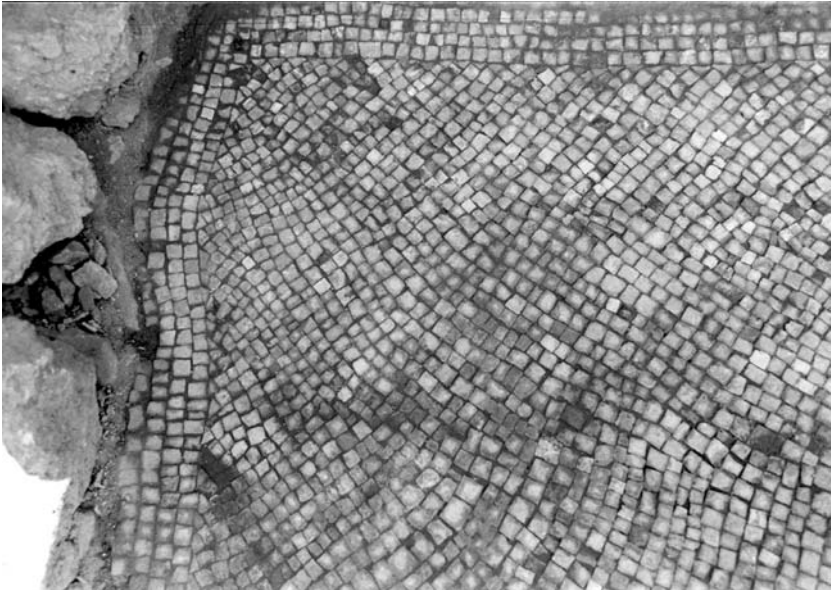


Figure 4.7. Detail showing border running along edge of masonry.

by the damaged area. Presumably this border extended as far as the eastern arch springer and, along with the arch above it, was used to divide the main part of the room from the cistern area to the north. There is no discernible pattern in the main area of the floor. In some areas, the tesserae were laid in the same direction, but this practice was not maintained across the entire pavement. The tesserae are not consistent in size, varying from 1.0 to 4.0 cm on a side. They are also irregularly shaped, which means that they do not fit together well.

Parallels

Monochrome white mosaic pavements are ubiquitous across the eastern Mediterranean, and the Levant is no exception. These floors were used primarily for their durability and suitability for certain types of buildings or installations. They are predominantly found in service areas that were subject to a high level of traffic, in private rooms where guests or visitors were not invited, and in pressing installations for wine and oil production. In Avi-Yonah's corpus (1948), more than 70 plain floors can be assigned to the Byzantine period. Plain white pavements have also been identified in Jordan at Tall al-Kharrār (Waheeb 2001b: fig. 6), Bayt Ras-Irbid (Melhem 1994: fig. 11), Khirbat al-Samra (Piccirillo 1993:308;

fig. 620), Sa'ad (Rose and Burke 2004: figs. 2.4–2.6), and Jbayha (Al Mhaisen 1976: pl. 16). The following is a sample of sites in central Jordan with pavements comparable to the mosaic at Tall Jawa.

Ma'in: The Church of al-Dayr, located to the southwest of the main tall of Ma'in, was part of a monastic complex and has been dated to the mid-6th century (Piccirillo and Russan 1976). The church displays the typical basilical plan with three rooms annexed to its southern side. The westernmost of these rooms served as a funerary chapel. The floor is paved with a plain white mosaic that surrounds the entrance to a rock-cut tomb (Piccirillo and Russan 1976: pl. XXXVII,2) located along the eastern wall. Here one can see three rows of tesserae laid parallel to the edge of the opening, with the remaining tesserae radiating from these rows on the diagonal.

Mukawir: The North Church at Mukawir, dated to the mid-6th century, consists of a small chapel located on the northern slopes of the mound on which the modern city has developed. It was probably part of a larger complex that extended to the south and west (Piccirillo 1995:293–318). A small room, annexed to the southeast corner of the chapel, was paved with a monochrome white mosaic floor (Piccirillo 1993:246).

Umm al-Rasas: The Church of Bishop Sergius occupies the northern portion of the large complex of St. Stephen at Umm al-Rasas. A doorway in the western wall of the church leads to a funerary chapel. Although the nave of the chapel is decorated with a polychrome mosaic depicting a grid pattern, its sanctuary is paved with a plain white mosaic (Piccirillo 1993:234).

Tall Madaba: The large urban residence on Madaba's western acropolis contains a number of rooms adorned with mosaics. The area to the west of Room 2 is paved with a plain white mosaic which, much like the floor of Room 607 at Tall Jawa, has a border composed of three rows of tesserae that follows the bedrock along the perimeter of the area (Fig. 4.8). The mosaic in Room 5 underwent a number of repairs. Along the western wall of the room, a small stone basin was embedded in the floor. The tesserae used to repair the pavement in this area are much larger than those in the rest of the mosaic (Fig. 4.9), indicating that this was a later addition (Foran 2007:114–116). The resemblance to the monochrome mosaics at Tall Jawa may point to a date in the Early Islamic period for Building 600.

Burnt Palace: The large residence known as the Burnt Palace is located to the north of Madaba's acropolis. This complex, contemporary with the structure on the western acropolis discussed above, contains a



Figure 4.8. Tall Madaba, Room 2.

number of areas that are paved with plain white mosaics. The floor in front of one of the entrances to the building, for example, was made up of simple white tesserae (Bisheh 1994:555–556), confirming the suitability and durability of this type of flooring.

Siyāgha (Mount Nebo): The large coenobitic monastery atop Mount Nebo underwent a number of different construction phases (Piccirillo and Alliata 1998:203–205). As the community expanded and the popularity of the site as a pilgrimage destination grew, a large monastic complex flourished around the Basilica of the Memorial of Moses (Saller 1941:117–186). At its height, this monastery occupied nearly the entire summit of Mount Nebo. Individual cells for the monks and communal working areas form the largest part of the complex. These areas are, for the most part, paved with plain white mosaics (Fig. 4.10), once again displaying the usefulness of this type of floor in high-traffic areas and private rooms.

CONSTRUCTION TECHNIQUES

The same construction techniques were used in both pavements. The bedding for these mosaics began with a layer of terra rossa soil on

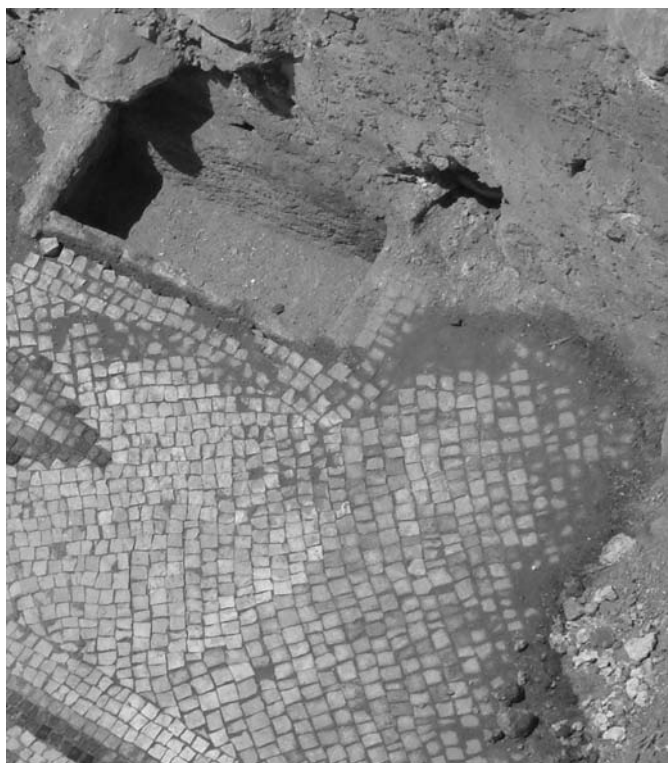


Figure 4.9. Tall Madaba, Room 5 with basin embedded in floor with mosaic border around the edge.

which a layer of cobbles was placed (Fig. 4.11). These stones were then covered with a layer of light gray mortar (7.5 YR 7/1) measuring between 0.8 and 1.0 cm thick. This rather fine mortar only contained a few small lime or chalk inclusions. A thicker, coarser layer of white mortar (10 YR 8/1) was placed on top, measuring between 2.5 and 3.0 cm thick. This layer contained a higher level of inclusions, consisting of small pieces of charcoal and larger pieces of lime or chalk. The tesserae were haphazardly placed into this layer, often causing the mortar to be pushed up between them.² This particular construction style is unorthodox; the layer of mortar into which the tesserae are laid is usually much finer than the layers beneath it.

² These observations were made from the mosaic fragments which were collected from the site and not from the *in situ* pavements.



Figure 4.10. Pavement in monastery on Mount Nebo (photo by D. C. Foran).



Figure 4.11. Cut through floor of Central Hall 607, showing layers of bedding plaster.

MOSAIC FRAGMENTS

During excavation, several mosaic fragments were recovered from the Field D building, suggesting that other rooms in this complex may have been paved. All of these pieces were made up of large, white limestone tesserae and many still had remnants of mortar and bedding adhered to them, which allowed a more thorough examination of the construction techniques used in these floors. Table 4B provides a list of these mosaic fragments as well as the number of tesserae in each and their size.

Table 4B. Mosaic Fragments.

Mosaic Fragment No.	Tesserae Count	Average Tessera size (in cm)
Unregistered 1	16	3 × 3
Unregistered 2	6	3.2 × 3.2
MF 1	2	2 × 2
MF 2	1	2.7 × 2.7
MF 3	2	1.5 × 2.0
MF 4	2 (1 triangular)	1.8 × 2.5
MF 5	1	1.5 × 1.5
MF 6	2	1.5 × 1.5
MF 7	2	2 × 2
MF 8	2	1.5 × 2.0
MF 9	2	1.5 × 2.0
MF 10	5	1.0 × 1.7; 2 × 2
MF 11	3	2 × 2
MF 12	3	2.5 × 2.5; 2.5 × 3.0
MF 13	2	2.0 × 2.3; 1.5 × 2.3
MF 14	2	1.5 × 1.5
MF 15	2	1.2 × 1.5; 2 × 2.0
MF 17	2	2 × 3
MF 19	3	2.3 × 2.3; 1.5 × 1.5
MF 20	2	1.5 × 1.5
MF 21	2	1.8 × 1.8
MF 22	2	2.0 × 3.2; 2.5 × 3.2
MF 23	2	2.5 × 2.5; 1 × 2
MF 24	5	1.5 × 2.0; 3.0 × 3.5; 3.0 × 2.7
MF 25	8	1.3 × 1.3; 2.5 × 2.5; 3.8 × 3.8; 1.7 × 3.0
MF 26	2	3 × 1

ISOLATED TESSERAE

When isolated tesserae were first recovered from Building 600, each was given an object number (Table 4C). This system was changed and a separate tessera registration system was established in 1993 that enabled the quantification of tesserae and the recording of their location.³ Of these tesserae, only two (TJ 215; Sample 92/396) deserve special attention.

Table 4C. Tesserae Assigned Object Numbers (1991, 1992).

TJ 215	TJ 369 (10)	TJ 426 (9)	TJ 489 (24)
TJ 303	TJ 380	TJ 427	TJ 490
TJ 304	TJ 384	TJ 429 (2)	TJ 491 (6)
TJ 310	TJ 385 (2)	TJ 432 (10)	TJ 492 (140)
TJ 312	TJ 386 (2)	TJ 433 (82)	TJ 576 (63)
TJ 325	TJ 387 (3)	TJ 434	TJ 577 (3)
TJ 326 (8)	TJ 388 (10)	TJ 435 (2)	TJ 578 (5)
TJ 327	TJ 389 (8)	TJ 436 (31)	TJ 579 (2)
TJ 328	TJ 390 (36)	TJ 464	TJ 580
TJ 329	TJ 396	TJ 465	TJ 581 (186)
TJ 330 (18)	TJ 400	TJ 466	<u>TJ 582 (98)</u>
TJ 335 (16)	TJ 401 (9)	TJ 467	529
TJ 336 (13)	TJ 402 (5)	TJ 468 (3)	
TJ 337 (3)	TJ 404 (10)	TJ 469 (35)	
TJ 356 (7)	TJ 405 (31)	TJ 477 (23)	
TJ 357	TJ 414	TJ 478 (2)	
TJ 358 (19)	TJ 415 (21)	TJ 479 (3)	
TJ 360 (6)	TJ 416 (6)	TJ 480 (133)	119
TJ 361	TJ 417 (3)	TJ 485	176
TJ 364	TJ 423 (11)	TJ 486 (33)	451
TJ 367 (8)	TJ 424 (3)	TJ 487 (62)	<u>529</u>
<u>TJ 368 (9)</u>	<u>TJ 425</u>	<u>TJ 488 (14)</u>	<i>Total</i> 1275
119	176	451	

³ In 2005, thousands of the large tesserae were donated to the Madaba Mosaic School.

Table 4D. Catalogue of Gold and Glass Tesserae.

Registration Number	Square: Locus	Measurement	Description
TJ 215	D12:5/13	0.7 × 0.7 × 0.6 cm	Gold glass tessera; multi-colour
Sample 92/396	D32:4/17	0.8 × 0.6 × 0.4 cm	Glass tessera; predominantly yellow

Gold and Glass Tessera

A small gold and glass tessera (TJ 215) was recovered from the northern wall of Rooms 602 and 603. The gold leaf on its exterior is now coated with a thin patina. A second, even smaller tessera with minimal evidence for gold foil from Room 605 is also coated with a florescent patina (Table 4D). Although few, these tesserae suggest the presence of elaborate wall mosaics at Tall Jawa. While gold and glass tesserae were extremely common in the decoration of public buildings in the early Islamic period, for example the Umayyad Mosque in Damascus, it is not often that these terrerae appear in a domestic setting. One such example is the gold and blue glass tesserae from superimposed surfaces which were located in the collapse of the Stratum 4 house at Buṣrā (Wilson and Sa'd 1984:50).

CONCLUSION

The mosaics which adorned the Field D building at Tall Jawa represent an important addition to the corpus of pavements in Transjordan. Although the number of examples from public settings is astounding, the collection of pavements from private or domestic contexts is scant at best. The Tall Jawa mosaics make a significant contribution to an aspect of the archaeology and art history of the region that is under-represented.

Without inscriptional or conclusive numismatic evidence, it is difficult to provide an absolute date for the Tall Jawa mosaics. However, the stylistic qualities of the carpet mosaic in Room 606 and the construction techniques used for both pavements points to a date in the Early Islamic period. The simplicity of design and lack of figural elements in Room 606 confirm this opinion. In addition, the extraordinarily large tesserae, the haphazard construction method of the monochrome floor,

and the isolated fragments have parallels in other mosaics in the region dating to the Early Islamic period.

The mosaics in Tall Jawa's Field D building do not suggest any particular function for this structure. Their construction and design parallel other contemporary pavements that were uncovered in domestic or residential contexts in the region. The monochrome pavement in Room 607 would have provided a clean surface for any activities associated with the cistern in this room. The carpet mosaic in Room 606 presents more of a challenge. Its design and execution clearly indicate that this room occupied a place of importance within the complex. Its exact function, however, remains ambiguous. The layout of the room and the way the mosaic was incorporated into the floor imply that the divided area at the eastern end of the room, with its shelf in the east wall and large number of lamps fallen in the debris in front of the shelf, had some kind of importance. The orientation suggests that this room may have originally served a religious purpose for the Christian community at Tall Jawa.⁴

The mosaic tradition at Tall Jawa is one of simplicity and is driven by purpose and function. These mosaics were not only valued for their aesthetic qualities, they also provided a durable and efficient surface that could be used for a variety of activities. The Tall Jawa mosaics are a good example of the private and less austere mosaic tradition that co-existed alongside the grandiose public artistic programmes in central Transjordan during the Byzantine and Early Islamic periods.

⁴ A small room located in a monastic complex at Tel 'Ira in the Negev was paved with a small central carpet adorned with a geometric design and two medallions with crosses (Ovadia 1999: fig. 11.1, 11.5). Its identity as a chapel is based on the presence of the footings for an altar and an apse in the east, similar in orientation to Room 606.

CHAPTER FIVE

PAINTED PLASTER IN BUILDING 600

N. J. Johnson

INTRODUCTION

A significant feature of the Building 600 is the painted wall plaster. The corpus of 436 fragments was found partly *in situ* or in otherwise sealed contexts, principally inside Room 606 (Daviau 1996:95–97; fig. 10). Additional fragments were recovered in Central Hall 607, adjacent to Wall 6007. All fragments were recorded, given individual registration numbers and later, drawn. During the collection process it was not possible to discern much of the plaster's surface characteristics but on brushing away the dirt, most fragments were found to bear remnants of paint.¹ Common colours used over a white background were red, red-orange, brown, and black (Daviau 1996:96); other fragments were painted a vivid yellow.

In reconstructing the fragments from Room 606 it was recognized that the surface of some walls had been divided into at least two registers, colours on a white background being found in the upper register, while the lower or dado seems to have been entirely yellow. The colour-on-white fragments include several lines of unidentified cursive script, geometric decorative elements, and Arabic graffiti either painted on or scratched into the plaster. It is not possible to say how the geometric elements might have accompanied or enhanced the cursive script, or even if they are coeval. A cross and the few accompanying Greek letters found in Room 606 (D33:21), painted in red on white plaster, were individually registered and drawn, and this material is dealt with below (see Chapter 11).

Fragments from Central Hall 607 have geometric decorative elements and Arabic graffiti as well; however, it would seem that the yellow dado

¹ See Painted Plaster Database on DVD.

was unique to Room 606. No painted plaster recovered from Building 600 was suggestive of naturalistic or figural content.

Room 606 (Figs. 3.1; 5.1, 2)

Room 606 is a small chamber divided into two unequal parts by two floor-level installations framing an opening; the larger, Area A (2.90×2.88 m), is paved with an intact mosaic carpet (see Chapters 3 and 4 above); the smaller, Area B (1.10×2.88 m), has plain white tesserae (Daviau 1996:96). Three arches supported the room's ceiling and an upper storey.

In the comments following, the walls will be called north (W6003), south (W6001), east (W6002) and west (W6007 and W6018), although they are not truly compass-oriented. The arch piers on the north wall are numbered D33:10, 11, 12, from west to east, and on the south, D33:20, 19, 18 from west to east.

Three sorts of under-plaster supported the painted effects of this room: a gray layer (10YR 6/1) below the painted surface, then, alternately, light gray (10YR 7/1) and pink (7.5YR 8/3).² The different under-plasters were quite well sorted with few small inclusions and where these occur, in all three plasters, they are mostly soft, white,

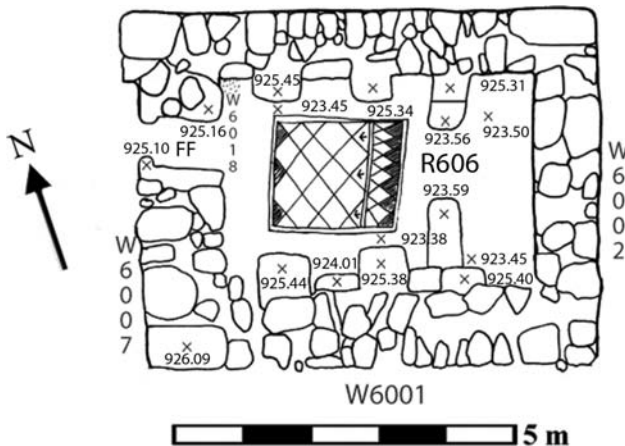


Figure 5.1. Plan of Room 606.

² All registered fragments were colour coded using Munsell Soil Color Charts, Revised Edition (2000).



Figure 5.2. Detail showing southern arches.

and chalky. Building up a level surface seems to have been difficult to achieve, either through lack of suitable materials and/or expertise. Clumps of the pink or light gray plaster were thrust into the deepest fissures between the wall stones, then the darker gray was used to fill out the remaining depressions and provide a base for the fine painted layer. This latter varies in thickness from *ca.* 2.0 to 8.0–9.0 mm across all pieces and is white.³

Sequence 130 (Fig. 5.3)⁴ shows something of the plastering technique. The painted layer, 2.0–4.0 mm thick, rests on a thin gray one (10YR 6/1), below which is a thick light gray layer (10YR 7/1) with inclusions and empty rounded pockets showing where other clumps of under-plaster had been. The painted fragment resting on its dark gray support has sheared at the juncture of these two layers.

Poor adherence of the plasters one to another is notable across the range of fragments. In a number of instances, only the painted layer remains. Perhaps one layer was not allowed to dry out before another was used, or they were inadequately keyed (cf. Central Hall 607, below), as they have come apart at their respective boundaries. The parting may appear as cleanly as a bone removed from its corresponding socket or like a slate coming away from the matrix. The plaster supporting the Greek script recorded in Chapter 11 is much like that described

³ The ‘white’ colour does not appear in the standard Munsell Soil Color Charts (10R–5Y), nor in Gley 1 or Gley 2.

⁴ Sequence PP130=D33:21/36.130; D33:24/39.146; D33:24/39.171; D33:21/36.365. In a mended sequence such as this, fragment PP130 is the control number in the database to which all the other fragments refer.

above, suggesting a continuation of the plastering technique from the Byzantine through to the Islamic period of habitation.

Most of the painted plaster came from a series of superimposed soil loci (D33:17, 21, 24, 25, 26, 27), the last being the final locus above the mosaic floor (D33:29). A number of fragments could be re-joined and it is those sequences, or individual pieces, combining red and yellow paint, which have provided the most significant information about the room's decoration.

Sufficient yellow-painted fragments were mended to suggest they came from the upper part of a dado, or socle. They are finished with a reddish to black limning line of varying width and intensity, above which the plaster is white. Evidence for the dado has been recovered from along the south and east walls only and whilst, for aesthetic reasons, having the lower part of all four walls painted yellow seems desirable, this is not proven. There is evidence that the yellow paint did not quite reach floor level, as a band of white plaster (0.18 m high by 1.47 m long) was found at the base of the walls (D33:31) in the southwest and southeast corners immediately above the mosaic (Daviau 1996:95).⁵

In the dado reconstruction of Sequence 122⁶ (Fig. 5.4) most fragments came from along the south wall in soil layer D33.21. This layer has an elevation of 923.75 m asl (bottom) to 924.43 m asl (top), compared with the mosaic floor at 923.38 m asl, indicating the dado could have reached at least as high as half a metre above the floor.⁷ Fragments

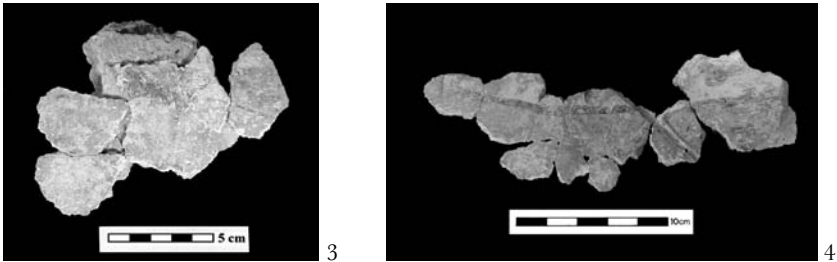


Figure 5.3. PP130, painted plaster with bedding plaster visible; 5.4. PP122, dado reconstruction with red script.

⁵ Tall Jawa Locus Record Sheet, D33 (1994).

⁶ Sequence PP122=D33:21/36.122, 123; D33:21/36.125–129 inclusive; D33:25/41.313; D33:25/41.393.

⁷ According to Photograph Description Sheet TJ/94/D/33/June 29th, this locus goes as far as the southeast corner of the room and takes up about one-quarter of the room's surface from the south wall toward the middle.

PP313 and PP393 came from soil layer D33:25, which abuts western walls W6007 and W6018 and is immediately below layer D33:21.⁸

Sequence PP272 (Fig. 5.5)⁹ and single fragments D33:21/37.87 and D33:25/41.393 (Figs. 5.6, 7) show more of the dado with strokes of red paint immediately above it. Some notion of what they and Sequence PP122 seem to have been a part can be observed in Sequence PP183¹⁰ (Fig. 5.8). This is the most substantial mend achieved and, in its assembly,

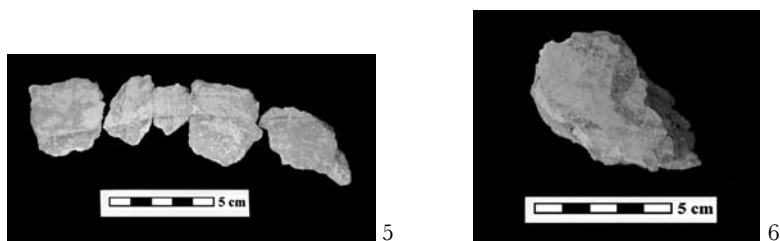


Figure 5.5. PP272, dado section with red script; 5.6. PP87, red script immediately above dado.

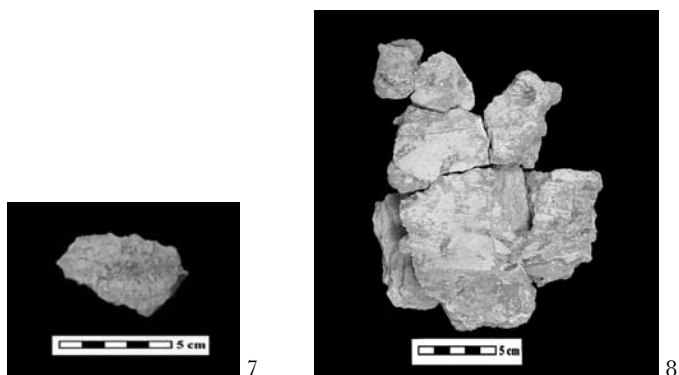


Figure 5.7. PP393, dado with red script; 5.8. PP183 four registers of red script above dado.

⁸ D33:25 is contiguous with arches D33:10 and 11 and D33:20 and 19, that is, in Area A, west of the two floor-level installations.

⁹ Sequence PP272=D33:25/41.272; D33:25/41.390; D33:25/41.391, D33:24/39.174, and D33:25/41.394.

¹⁰ Sequence PP183=D33:24/39.183; D33:25/40.218–220 inclusive; D33:25/40.225; D33:25/40.302; D33:24/39.136; D33:21/37.368.

encapsulates earlier comments on the plaster's quality. The painted layer is very worn, with deep vertical and horizontal scratches. Mends were achieved as much by reference to the under-plaster as to the top, because some of the painted layer, along with its gray bedding, has lifted up from the rest by as much as 10.0 mm (Fig. 5.9).¹¹ While many pieces of Sequence PP183 came from Area A, fragments PP183 itself and PP136 came from Area B.¹² Spread over four registers is a cursive script written without discernible breaks between the letters, which are 3.0–4.0 cm high. It seems to be written from right to left; that is, where script and dado come together, the script seems to end on the right with a blank space to the left. Notwithstanding its negligible limning line, this Sequence and those already mentioned depicting the dado in conjunction with red script elements are clearly linked. The work is coeval with the dado. The language is so far unidentified.

Considered together, the script fragments suggest that a monumental statement, or statements, at least four registers deep, was painted on the south and east walls. Since joining fragments with yellow and red paint were recovered from both Areas A and B, it may be that the two floor-level installations between the areas supported a half-wall, above which the script could have continued, implying that Area B had a purposeful relationship with Area A.

Other decorative elements, consisting of various swirls and sweeping bands of colour, which may have supported or enhanced the script, are not susceptible to placement relative to the script. Sequences PP51 and PP89¹³ (Fig. 5.10) come from Area A, and fragments D33:24/39.201, D33:24/39.211, and D33:24/39.216 (Fig. 5.11) from Area B. Linked arches, Sequence PP249¹⁴ (Fig. 5.12), and arch-like forms, D33:24/39.213 (Fig. 5.13), were recovered from both Areas. The fragments of amorphous colour in Sequence PP92¹⁵ (Fig. 5.14) come

¹¹ D33:25/40.219, from Sequence PP183.

¹² It is not possible to say whether the black paint at the right of Sequence PP183 (Fig. 5:7) is part of the original scheme.

¹³ Sequence PP51=D33:17/26.51; D33: 24/39.172, and Sequence PP89=D33:21/37.89; D33:25/40.282 are both shown in Fig. 5:9.

¹⁴ Sequence PP249=D33:26/43.249, D33:25/40.300. Soil layer D33:26 was immediately below D33:24 in Area B.

¹⁵ Sequence PP92=D33:21/37.92-94 inclusive; D33:24/39.155; D33:24/39.196, D33:25/40.238.

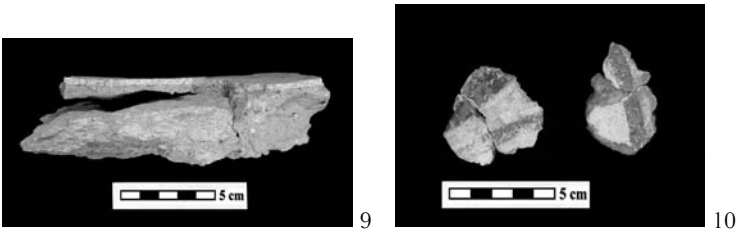


Figure 5.9. PP219, painted layer separating from bedding plaster; 5.10. PP51 and PP89, decorated fragments from Area A.



Figure 5.11. PP201, 211, 216, decorated fragments from Area B.

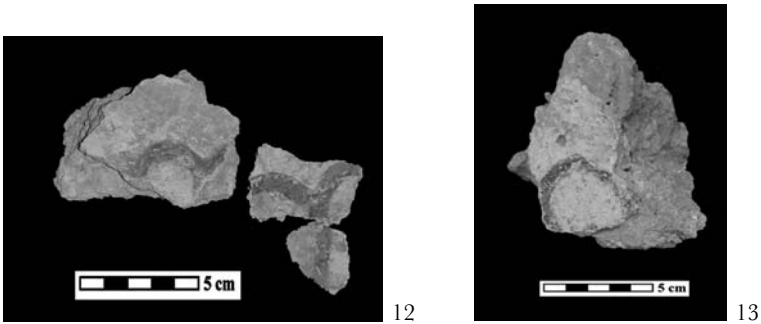


Figure 5.12. PP249, painted arches; 5.13. PP213, arch-like form.

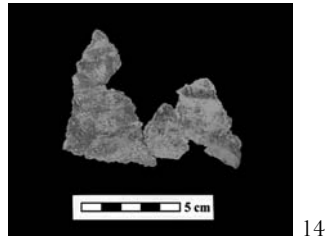


Figure 5.14. PP92, amorphous colours.

principally from Area B, with only one piece certainly from Area A. Weathering may have caused the colours to run, but distinct strokes that could belong to the script of Sequence PP183 can still be seen.

Central Hall 607 (Figs. 3.1; 5.15, 16)

Some of the few fragments recovered immediately south of Arch D23:7 in Central Hall 607 could be mended. Their colours, now very faded, must have been light red and black (2.5YR 7/8, N4/) and were used to form a series of contiguous curves or arches (Fig. 5.17).¹⁶ It is impossible to say where or how much of this pattern existed, but the remnant suggests it would have required both care and planning to accomplish.¹⁷ Adhering to Wall 6007 was a section of under plaster with well-preserved herringbone keying from which the painted plaster layer had fallen away. Parallels for this technique can be seen at Qaṣr al-Ḥallabat, where ashlar masonry covered with plaster retains a herringbone keying pattern that underlies the finer surface plaster (Bisheh 1980: pl. LIV:4). At the Jubayha church, fragments of fine plaster preserved just above the floor are keyed into a long expanse of coarse plaster incised with a herringbone pattern (al-Mhaisen 1976: pl. 1).

Room 607 was paved with a plain white mosaic bordered with several rows of parallel tesserae (see Chapter 4, above), and it was from this neatly-finished space that Room 606 was entered.

¹⁶ Sequence PP3=D23:03/32.3; D22:31/43.30; D22:31/43.32 and D22:31/43.34–37 inclusive.

¹⁷ A number of the fragments recovered bear faint black strokes on white, all suggestive of graffiti (see Chapter 11, below).

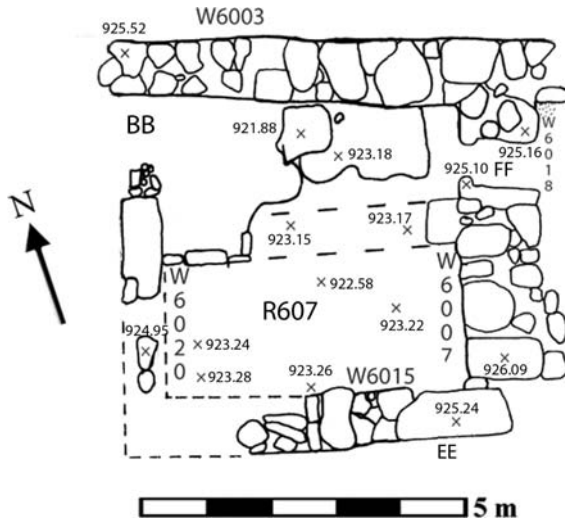


Figure 5.15. Plan of Central Hall 607.



Figure 5.16. West face of East Wall 6007 with wall plaster adhering to the wall stones.



17

Figure 5.17. PP3, red on white intersecting arches.

DISCUSSION

The decoration of Room 606 suggests it had a special function and importance not related to activities carried out elsewhere in the building. On the basis of its painted walls and mosaic floors, Room 606 has been designated the building's reception room. In this function, it is comparable to a similar chamber in an Early Islamic residence excavated at al-Ḥumayma, 40 kilometres south of Petra, where room 02 is the only decorated one. It had a white plaster floor and a solid red dado, of which up to 0.52 m remains *in situ*. Above the dado, and possibly including the ceiling, was an overall pattern of beaded diapers filled with rosettes (Foote 1999:425; fig. 4; Oleson *et al.* 1999:440–441). By reason of its location in the complex, decoration and remnants of luxury items found therein, room 02 has been identified tentatively as al-Ḥumayma's "ceremonial audience hall" (Oleson *et al.* 1999:442; fig. 16).

The qaṣr, which is dated to the early eighth century AD and has been identified as the residence of the Abbasid family which overthrew the Umayyad dynasty, had its own mosque (Oleson *et al.* 1995:344–346). No ancient name for Tall Jawa has been discovered, but various recoveries and archaeological data attest continued occupation into the Early Islamic period, possibly by Muslims. It had no mosque, nor are mosque remains known of in its immediate vicinity.

These country residences, with their modestly-decorated reception spaces, help fill out our knowledge of the occupiers of Jordan in the Early Islamic period. The painted walls suggest a continuation of extant decorative practice, the "essentially . . . private art" particular to domestic interiors (Ling 1991:221). In these two residences, no great skill would have been required to achieve the observed effect, though the choice

of dado colour at Tall Jawa should be qualified. Al-Ḥumayma's paint colours were analysed at the Canadian Conservation Institute of Heritage Canada. Most were found to be locally available and widely used for a very long time, except the yellow of the ellestadite group. It has not been identified at other sites, and it could not be determined if it was local or imported (Corbeil *et al.* 1996:427–428). If the yellow colour at Tall Jawa is similar and was imported, then the owner of Building 600 must have taken some trouble and expense to acquire it.

In the Graeco-Roman world, of which Tall Jawa was ceasing to be a part, walls were appropriate places for official or informal statements of every kind, and inscribed walls might be found in shops, *fōra*, temples, churches, and on the street side of house walls. For example, an exterior wall at Pompeii, before 79 AD, shows Latin electoral inscriptions in red on white above a red dado (Nappo 1998:44, top). There are the remains of a painted calendar for October, ca. 175–225, on a wall in the church of S. Maria Maggiore, Rome (Salzman 1990:7, 176, n. 228; Liverandi 1988:44–45). Painted calendars, or *fasti picti*, might record the days for assembly, festivals, or the legal conduct of business, but their bright red lettering was popular also as decoration on the white walls of private and public buildings (Salzman 1990:6–7). At Sobota (Shivta) in the central Negev, part of a tax payment list, painted in red on a white-plastered limestone block, was recovered from the narthex of the South Church. Dated according to the Diocletian era, it refers to five years of the tenth indiction and is said to have been written about or shortly before 617–622 AD (Di Segni 1997: I.823–826; cat. no. 326). The presence of such a list in a church is not anomalous, as the priest might well have been responsible for tax collection (Di Segni 1997: I.825). In Jerusalem, the Qubbat al-Ṣakhra has a monumental mosaic statement dated about 691 (Kessler 1970:12), affirming God's oneness and setting out the relationship of Muslims to others. What then should be made of the script in Room 606?

On the slim evidence that it seems to be written from right to left, Tall Jawa's intended language might be Arabic. Finds in the building, such as an ostrakon inscribed with the *Basmala*, and ceramic lamps and graffiti bearing the name *Allah*, are strong evidence for the presence of Arabic-speaking Muslims here. The problem of identifying this script brings to mind those associated with the Greek on Late Byzantine "candlestick" ceramic lamps. The script encircling the fill holes of the lamps was described as "barbarous Greek" (Wilson and Warren 1871:484; Nitowski 1986:1, n. 2). The lamp makers were said

to have placed the letters every which way and had “no knowledge of the Greek alphabet” (McCown 1947:173–174; Nitowski 1986:4, n. 1). Others thought the “unintelligible” Greek letters resembled the Safaitic alphabet or might be “breaking down” under the influence of Arabic just prior to the seventh century.¹⁸ Nitowski and Loffreda, working independently, were able to identify the letters, and demonstrate that their apparently haphazard placement was deliberate and corresponded to provable formulae, which could be understood and translated. Perhaps our comprehension of Room 606’s script is impeded by its cursive form.

It is impossible to say if Tall Jawa’s script appeared on the north and west walls, but if originally it was only on the south and east ones, then it is important to note that the south and east walls of Room 606 intersect at almost due south, the direction of Mecca. If the script proves to be Arabic, or was intended to appear so, and considering the reverence in which Arabic is held as the language of the Qur’ān, this reception room may have had a devotional function. By which is meant, the south and east walls could have functioned as the *qibla*, directing prayer toward Mecca in an architectural setting not aligned for the purpose.

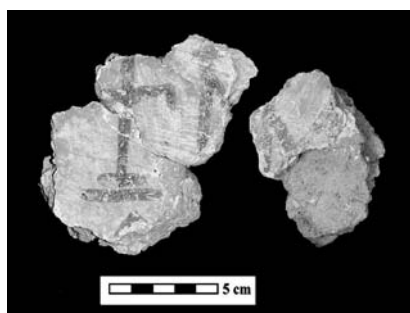
Two particular finds from Room 606 seem to argue against such a theory. One is Sequence PP117¹⁹ (Figs. 5:18 and 5:19) comprising the remnant of a cross and Greek letters. Three of its fragments come from soil layer D33:21, one from D33:17,²⁰ and one from D33:25, suggesting, for the purpose of argument, that the Sequence comes from near the southwest corner of the room. Finds such as a bronze cross (TJ 1004), a Greek-inscribed jug (TJ 138), ceramic lamp (V1651), and ostrich eggshell fragment (TJ 590) are evidence for the presence of Greek-speaking Christians in this building, at some time.²¹ Without more evidence the script fragments are insufficient to suggest a specifically

¹⁸ Nitowski (1986:18, n. 2) referring to Day (1942:64–79), and nn. 3–4, referring to Kennedy (1963:67–115).

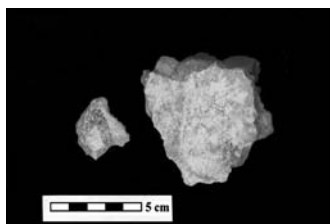
¹⁹ Sequence PP117=D33:21/37.117; D33:21/37.367; D33:21/37.116; D33:17/26.54; D33:25/40:291. PP117, 367 and 116 are shown in Fig. 5.18, and PP54 and 291 in Fig. 5.19.

²⁰ According to Photographic Description Sheet TJ/94/D/33/June 29th, soil locus 17 is at the same level as soil locus D33:21, goes as far as the corner of the north and east walls and takes up about three-quarters of the room’s surface west-east, from the north wall towards the middle.

²¹ For a discussion of these items, see Chapters 10, 11, and 12.



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19

Figure 5.18. PP117, Greek cross and letters; 5.19. PP54g, fragments of Greek letters.



20

Figure 5.20. PP69, third script.

Christian religious purpose for Room 606. The second find is Sequence PP69²² (Fig. 5.20), which appears to be a script other than Greek or that of Sequence PP183, and comes entirely from Area B. This language has not been identified, nor do there seem to be data supporting its presence here. No fragment in either sequence shows remnants of the dado, nor do the remains of red script above the dado or in Sequence PP183 bear any resemblance to the scripts in PP117 and PP69.

There are no ready explanations to account for the presence of Greek and the third script in Room 606. Nor can it be known how much more of either there was at the time the dado was painted. But, as both Sequences came from the extreme ends of the room, it is even possible that by then they were not much more than has been found and were ignored. Perhaps due to the vagaries of chance, the greater proportion of painted plaster recoveries from Room 606 support the notion that its dominant wall adornment in the Early Islamic period of

²² Sequence PP69=D33:24/39.69; D33:24/39.359; D33:24/39.369; D33:24/39.144; D33:26/43.255; D33:26/43.344.

occupation comprised a yellow dado and one or more pseudo-Arabic inscriptions.

While there appear to be no contemporary examples of script as an integral element of wall embellishment in a domestic setting, Arabic used in private space was discovered at al-Ramla, Palestine. A south-oriented arch had been set into a mosaic floor, within the arch head of which was part of the Qur'ānic sūra 7.205 "...and be thou not of the neglectful", understood as an injunction to prayer. All of the building housing the mosaic had disappeared, but the investigator concluded it had been a well-to-do private dwelling and, on the basis of palaeographic and ceramic evidence, determined that this example of a private *mīhrāb* should be assigned to the eighth century (Rosen-Ayalon 1976:116–119; pl. 23c). This residence was in the city centre, not far from the principal mosque (Luz 1997:37–38).

If Tall Jawa's reception area was used for prayer, it was not because the residence was isolated from the Muslim community, although as noted, it seems to have had no mosque nearby. It may be conjectured that private devotional spaces fulfilled the need of the absent mosque, but there is as yet no ready explanation for Room 606's script. Even if it is not truly Arabic, it is an extraordinary enhancement of the space. This pseudo-inscription (if that is what it is) is masterful in concept and execution.

Pseudo-inscriptions were not specific to any particular period. In the second–third century AD tomb of Loukianos, in the necropolis of Abila in northwest Jordan, a woman is depicted writing a *faux* script on a pair of tablets. Her role in the decorative scheme there is not clear, but the *faux* script is accepted as purposeful (Barbet and Vibert-Guigue 1994: I, 78–79, 84; II, pl. 13a).

All of Building 600's painted plaster attests diverse usage and occupancy. In particular, the arrangement of material observed in Room 606, the carefully delineated registers into which the decorative schemes are divided (Goodman 1988:162; Anderson 1987: figs. 23, 32, 48) link the painter to the wider, Graeco-Roman heritage of paint-embellished walls. Some regional examples of painted work are found at the 1st–2nd century AD Nabataean sites of Wadi Siyyagh, Petra and al-Zantur (Augé and Dentzer 2000:72, 63, 71), the early 3rd century AD Nabataean Building XII at Mampsis (Goodman 1988:162), and the late 4th/early 5th century AD Byzantine Northern Church at Rehovot in the Negev (Tsafirir *et al.* 1988:4).

CHAPTER SIX

ARCHITECTURAL FEATURES IN BUILDING 600

P. M. Michèle Daviau

INTRODUCTION

Building 600 yielded artefacts and architectural elements that date to both the Iron Age and the Late Byzantine–Early Islamic periods. In certain instances, it was not possible to ascertain the period to which certain features belonged. For example, a boulder mortar door socket could have been in use during the final Iron Age II occupation (Stratum VII) in Building 700 and later reused. On the other hand, dressed stone door frames were probably designed specifically for use in Building 600 or reused from a Byzantine structure located elsewhere on the site or in its neighbourhood. Other elements, such as a lintel engraved with crosses, may also be in secondary use, although the Byzantine building to which these features originally belonged has not been excavated. At the same time, the small hoard of post-reform coins recovered under the floor in Room 605 was clearly *in situ*. So too, the mosaic floors were an integral part of the Early Islamic structure. This chapter discusses briefly the architectural features which were either in place or were found scattered throughout the debris inside Building 600,¹ along with those in topsoil layers outside the structure.

Beginning in 1992, large architectural elements, such as threshold stones, vaulting stones, reused column drums and worked stones identified during excavation were labelled, registered, and preserved in a *lapidarium* on the site (Table 6A).² Some of these features, along with ceramic roof tiles,³ also received an object number consisting of

¹ See discussion of various rooms in Chapter 3 and the Locus List on DVD for precise locus information and location in B600.

² Not all categories of architectural element were identified during excavation. These same categories are now in use by the Wadi ath-Thamad Project, southeast of Madaba.

³ All roof tile fragments with their measurements and colour codes are included in the objects database on the accompanying DVD.

Table 6A. Registration Codes for Architectural Features.

Base	B	Lintel	L
Capital	CP	Paving Stone	PV
Ceiling Slab	CS	Pilaster	P
Column	C	Roof Tile	RT
Columnette	CM	Rope-marked Stone	R
Decorated Masonry	DM	Staircase step	SS
Drain	DR	Threshold	TH
Door Jamb	J	Vousoir	V
Drum	D	Vaulting Stone	VS
Floor Tile	FT	Window Stone	W
Hewn stone/toolmark	H		

the Site+Field+Square/Pail#.Object# (for example, Socket Stone TJ D14/9.1169). Additional elements including lintels and stone door-frames recovered during succeeding seasons were registered, either as loci and/or as architectural elements. A few items with object registration numbers are included in the discussion of architectural features, since their function is otherwise unknown. Parallels cited here are samples only, no attempt was made to be exhaustive.

CEILING SLABS

Eleven large, limestone ceiling slabs (D22:14; see Figs. 3.2; 6.1:1), linking Walls 6013 and W6015, were found *in situ* above Corridor 617. These slabs are similar to those above R616 (D13:30; D13:60) and distinct from vaulting stones which extended from the vousoirs of one arch to those of another (see below). Ceiling Slabs D22:14 were lozenge-shaped and measured *ca.* 0.97–1.33 × 0.40–0.60 m, and 0.15–0.20 m thick.

COLUMNETTES

One fragment of a small marble column (or possible pilaster) was present in the debris of Room 606. This columnette is fluted on the diagonal (spiral fluting) and may have been part of the furniture of an earlier building. In its present condition, it is broken and retains traces of mortar on the back side and edges.

Catalogue

TJ 1117 (Fig. 6.1:2; D33:8/12). Spiral fluted marble column/pilaster; D 14.5, preserved L. 12.05, W 9.2, T 2.2 cm; bluish gray (5PB 6/1); fragment.

Parallels

Chancel screen posts and other architectural elements known from churches in Palestine, especially those in the Negev,⁴ serve as good parallels for spiral-fluted columnette TJ 1117, although this feature is not exclusive to churches.

Beth She'arim: In Catacomb 3, a menorah with a spiral-fluted shaft is carved in relief above a human figure flanking a doorway (Mazar 1973: fig. 5a).

Nazareth: A small stone column, *ca.* 22.0 cm wide, possibly part of an iconostasis, was recovered in the Chapel of the Virgin Mary (Bagatti 1969: fig. 63:7=64:6).

Bethany: Two small column shafts that were not *in situ* have spiral fluting (Saller 1957: pl. 75:12, 16), in which each groove is broader and/or more ornate than those on TJ 1117.

Mampsis: From the West Church, two marble chancel posts, with spiral fluting and a diameter of 13.0–16.0 cm, are thinner than the small column from Nazareth (Negev 1988b: photos 61; 131=fig. 11:194; 195).

Rehovot-in-the-Negev: A number of chancel screen posts with spiral fluting were recovered from various rooms of the Northern Church. These posts are rectangular with a semicircular half-column with diagonal or spiral fluting (Tsafirir *et al.* 1988:115; pl. IX:34=ill. 173; 35=ills. 174, 175; 36=ill. 176; 41=ill. 181).

Avdat: An inscribed lintel bears an incised 6-petalled flower and a small column with diagonal fluting (Negev 1978: Photo 35).

Khirbat al-Mafjar: Although there are few parallels in stone that can explain the function of the small fragment from Tall Jawa, a stucco balustrade from Khirbat al-Mafjar has two registers of arches with alternating pairs of small columns; altogether, there are eight pairs

⁴ The same spiral or diagonal fluting appears on miniature ivory columns recovered in the North Church at Ḥisbân (Lawlor 1994:133). Lawlor suggests that these small columnettes served as a frame for inlays on wooden furniture.

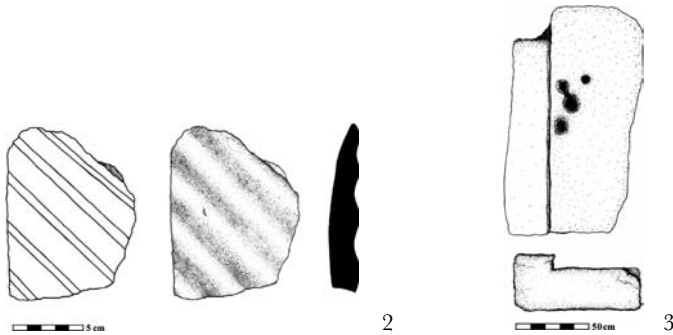


Figure 6.1. Architectural features; 1) Ceiling slabs over Corridor 617; 2) Marble Columnette (TJ 1117); 3) TJ-D13/J-2.

of spiral fluted columns along with a border fragment with another pair of columns (Hamilton 1948: pls. XIX, XXI).

Mount Sinai: A small spiral-grooved column in the centre of twin windows is a feature on both the Mount Sinai church and Saint Catherine's Monastery church. A column in the modern church on the summit may have been reused from the debris of the Justinian church, which covers the summit; this column was possibly from a "ciborium, ambo or altar table" (Dahari 2000:35; fig. 6a, b; plan 6).

DOORFRAMES

Stone doorframes and jambs scattered in the collapsed debris made excavation difficult in several rooms and a crane was required to remove them from the building. One of these architectural pieces is a monumental door jamb which was located on top of a mound of fallen wall stones above Room 608 (Figs. 6.1:3; 6.2:1, 2).⁵ A number of other jambs have locking holes, indicating the elaborate architectural features in Building 600.

Catalogue

TJ-D13/J 1 (Fig. 6.2:3; D13:0.5). Door jamb with Arabic text.

TJ-D13/J 2 (Fig. 6.2:2; D13:0.5). Door jamb with locking holes.

Parallels

Meiron: The domestic buildings at Meiron were well built in boulder-and-chink construction with ashlar doorjambs. One such jamb, with three bolt holes, framed the main entrance into the MI building (Meyers *et al.* 1981: fig. 3.8; photo 23).

Amman: Another good example of a doorframe with a locking mechanism on its inner face was located *in situ* in Squares C.II and C.XII on the 'Amman Citadel (Bennett and Northedge 1977–1978: pl. XCVI:2).

DRAINS

A small ceramic drain (Fig. 6.3:1, 2) was exposed between the wall stones of the inner face of south Wall 6005 in Room 601. The drain consists only of a cylinder, the size of a jar neck.⁶ This drain appeared to have no outlet as the outer face of the wall sealed against the distal end of the drain.

A jar (V653=D13:22), apparently used as a drain or a toilet, was embedded in a stone-lined installation (D13:12) in upper-storey Room

⁵ This jamb is inscribed with an Arabic inscription, portions of which are badly weathered making decipherment nearly impossible and dating uncertain (see Johnson in Daviau ed., in preparation).

⁶ Photographed *in situ*; the drain subsequently went missing.

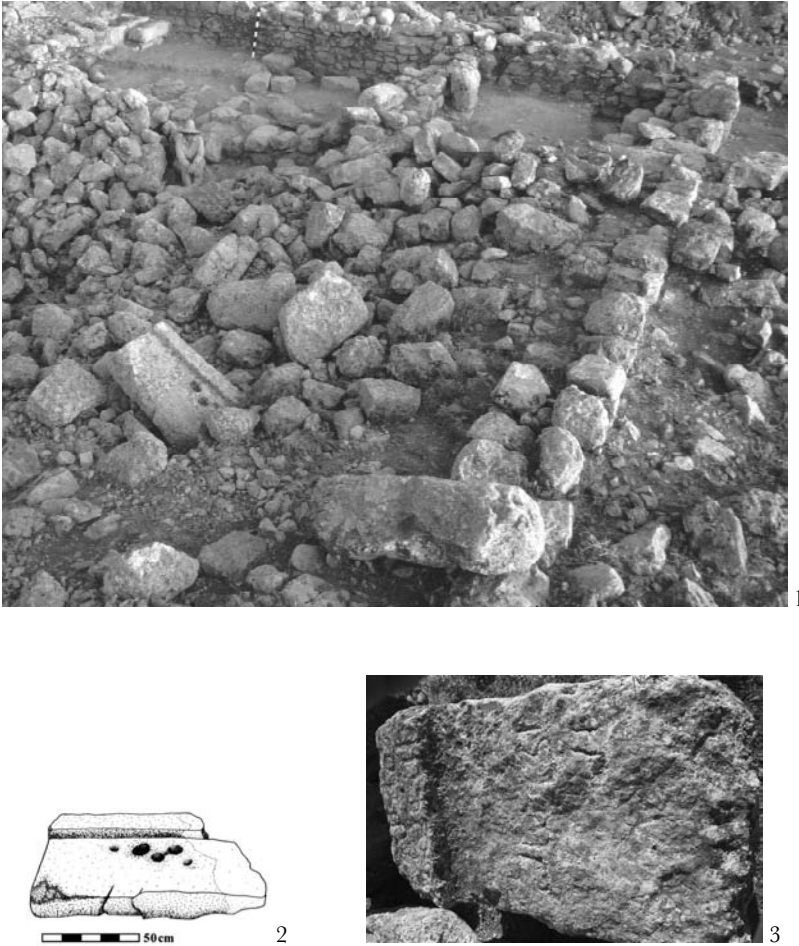


Figure 6.2. Door Jambs, 1) jambs *in situ* in collapse; 2) TJ-D13/J-2; 3) TJ-D13/J-1 (inscribed, see Daviau, in preparation).

608 (Fig. 6.3:3, 4).⁷ This feature appears to be unique to B600, but latrines are known from Byzantine period houses at Umm al-Jimal (Hirschfeld 1995: fig. 22, Building XVIII plan, after Butler) and at Mampsis (Negev 1988a:141–144; figs. 143, 144).⁸

A ceramic channel was located amid the collapsed wall stones covering Iron Age Building 800 (Daviau 2003), to the south of Building

⁷ For details of the pot itself, see Chapter 8.

⁸ Negev (1988a) cites a number of parallels in the houses from the Hauran.

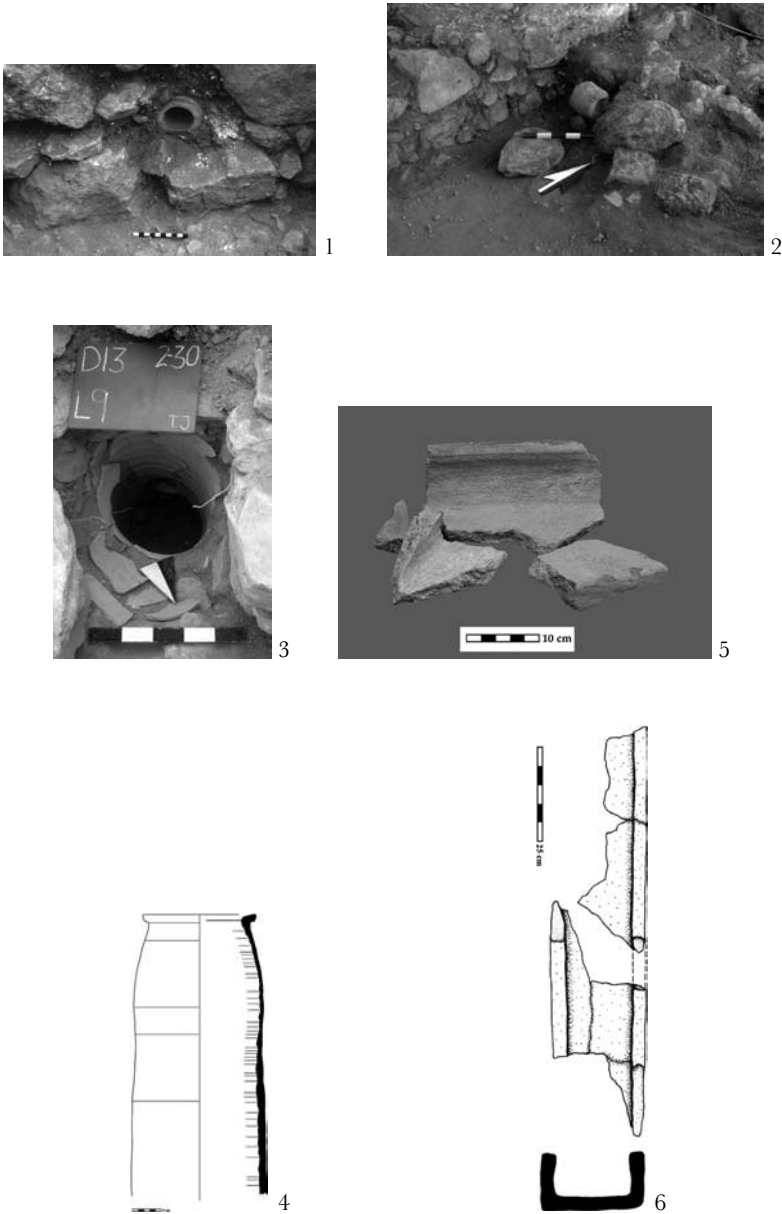


Figure 6.3. Drains, 1, 2) small drain in Wall 6005, south wall of Room 601; 3) D13:9, ceramic drain pipe *in situ*, adjacent to W6017 = D13:9; 4) Drain pipe D13:22 = V653, from Room 608; Channel; 5, 6) TJ 183, ceramic channel in secondary deposition (C17).

600 (Fig. 6.3:5, 6). The channel is broken into eight pieces and is U-shaped, with a flat bottom and vertical sides. The precise function of this feature remains hypothetical; it could have served to carry water away from B600 at ground level and, given its position, was probably associated with the south side of the Early Islamic house.

Catalogue

V653 (Fig. 6.3:3, 4; D13/32.1). D 19.0–21.0 cm, H 59.0 cm; pink (5YR 7/4) fabric and exterior, light red (2.5YR 6/6) interior; chipped, pitted and broken

TJ 183 (Fig. 6.3:5, 6; C17:5/15) Ceramic channel; L 90.0, H 13.0, ext W 22.0, int W 16.0, int Dpt 10; side T 2.7–3.0 cm; bluish gray (5BP 5/1) core, light gray (7.5 YR 7/1) exterior; broken.

FLOOR TILES

The best example of a floor tile was located along the west face of east Wall 6006 in Room 601. This marble slab (TJ 184) was found broken, but still in place between two arch piers (D12:16 and D12:17). The tile was installed above a fill which contained a broken jar (V646) and two metal fittings (TJ TJ 243, 245), indicating that Room 601 was remodelled at some point in its occupation history. At Tall Jawa, this marble tile was the only one of its kind, suggesting that it was originally an element of marble furniture from an earlier building.⁹ The upper surface was carefully smoothed, whereas the other face has a shallow margin surrounding an unfinished surface. Additional floor tiles located in the northwest corner of Room 601 consist of rough limestone flagstones which were incorporated in a stone pavement (D2:25).

Catalogue

TJ 184 (Fig. 6.4:1; D12:11/22.). Marble tile; L 61.3, W 38.8, T 2.7 cm; broken.

⁹ Marble furniture in the form of table tops and bases and undecorated sections of chancel screens are typical elements in churches and monasteries; one example is from Khirbet ed-Deir, where a limestone altar table had a plain base to support the table legs (Habas 1999: fig. 10).

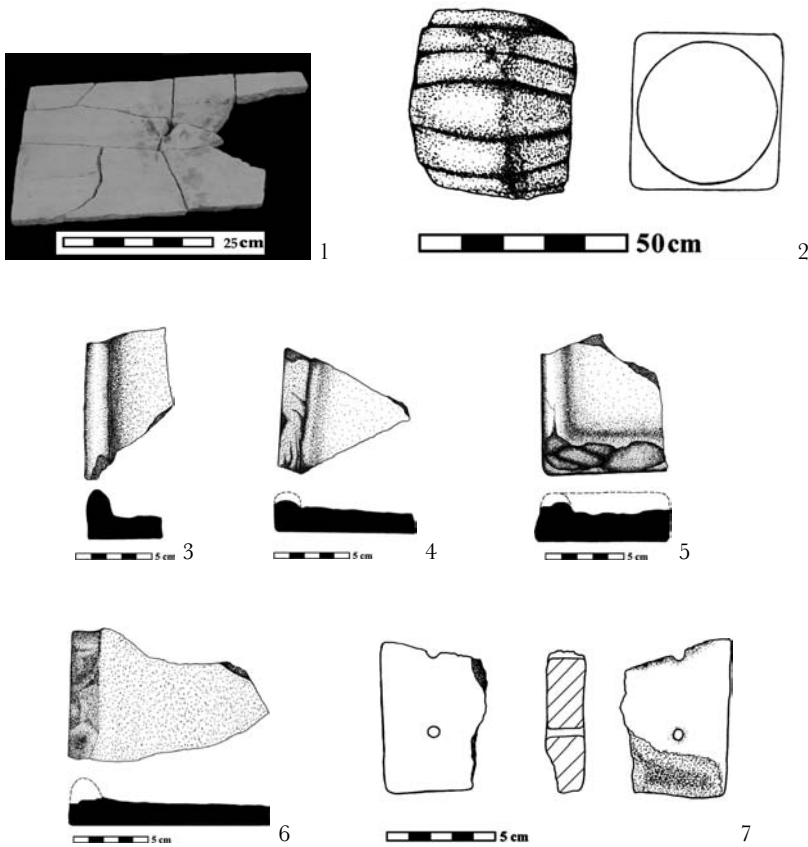


Figure 6.4. Floor Tile, 1) TJ 184 = D12:11, Marble floor tile from Room 601; 2) Pilaster, Segment D32:30 from Room 605; Roof Tiles; 3) TJ 1075; 4) TJ 1222; 5) TJ 1078; 6) TJ 506; Stone Plaques; 7) TJ 1942.

Parallels

Marble tile TJ 184 is only half the size of altar tables, and it is very plain in contrast to those known from church sites, such as Siyâgha (Mount Nebo) (Acconci 1998:489, 491; fig. 61).

Wādī al-Kharār: Both the second and third churches at the site had marble tiles of various shapes incorporated in their floors (Waheeb 2001a:420–421; figs. 4–5).

PILASTER

Originally identified as a column drum in secondary use, architectural locus D32:30 was more likely attached to a wall, given the absence of decoration on one side (Fig. 6.4:2). This feature was located in Room 605, lying on its side with one end against the south face of Wall 6001. The drum has a nearly rectangular shape (35.0 × 27.0 cm) with horizontal grooves. A circular base with a diameter of 32.0 cm suggests that this drum was originally part of a larger element.

Parallels

Siyâgha (Mount Nebo): A number of small columns and monolithic supports with a grooved moulding above the plinth were among the elements of liturgical furniture studied by Acconci (1998: figs. 16, 28, 41, 146, for example); while not an exact parallel, these furnishings are suggestive of the style of column in use at Tall Jawa.

ROOF TILES

In Building 600, a group 48 ceramic tile fragments were recovered and identified as roof tiles. In the catalogue which follows, thickness refers to the flat 'body' part of the tile, and does not include the maximum thickness of tiles with raised edges. Fragments include tiles with the flange along one edge (TJ 1075, 1222, 506; Fig. 6.4:3, 4, 6), tiles with no evidence of the flange, but of one straight edge, as well as one corner slab (TJ 1078; Fig. 6.4:5). Because no complete examples were recovered, the full size of these tiles remains unknown. It seems that all the tile fragments come from *tegulae*, large rectangular or rhomboid shaped tiles with raised ridges/flanges on their long sides and straight edges along their short ends. These tiles were designed to be linked together by curved *imbrex* tiles which fit over the flanges of two adjacent *tegulae*, forming bridges. Thus, rows of *tegulae*-linking *imbrices* could be used to form a watertight roof. This method was in use at many sites, including Gadara (Umm Qays), where both *tegulae* and *imbrices* were recovered on the terrace in areas I and III. The fabric of these ceramic fragments was studied, as well as the forming techniques (Vriezen and Mulder 1997:326; figs. 7–11).

Another method of linking the *tegulae* is suggested by Schneider (1950: fig. 15B 1b), who recognized variation in the stance of the flange on

tiles found at Nebo, allowing for a *tegula* to be used as an *imbrex*. While these two styles of roofing may suggest a change over time, the fact that no tiles matching the *imbrex* form have been found at Tall Jawa may indicate that this alternate system was in use at Tall Jawa as well. Support for this theory can be seen in the presence of mortar adhering to the underside near the intact edge of Tiles TJ 1222 and TJ 1391. Because roof tiles were often held in place on the wooden roof frame by gravity alone, mortar was not needed in the construction of a roof using *imbrex* tiles. However, the mortar/cement found on tiles from Ḥorvat 'Ammudim (Adan-Bayewitz 1982:25) and from the town of Nebo (Schneider 1950:131, 134) may be evidence of a different construction tradition at these sites when compared to other regions of the late Roman world.

The small number of tiles from Building 600 suggests that they were not used as roofing material, but were scavenged from an earlier (Byzantine?) structure at the site and used for a different purpose. Plaster or mortar adhering to the edges of a number of roof tile fragments (TJ506, 1075, 1393, 1419, 1420, 1456, 1584), may indicate re-use as a building material, or as a lining for drains, or even for flooring.¹⁰

Catalogue

Object #	Thickness	Portion	Fabric Colour / Surface Colour
TJ 506	1.4–1.5	edge fragment ridge broken	10R 6/6, light red / 5YR 8/3, pink
TJ 1075	1.4/3.4	edge fragment	2.5YR 6/6, light red / 2.5YR 6/6, light red
TJ 1078	1.4/2.4	corner fragment	5YR 6/6, reddish yellow / 7.5YR 7/4, pink
TJ 1220	1.9	end fragment	5YR 7/4, pink / 10YR 8/4, very pale brown

(Table continued on next page)

¹⁰ Tiles were used to line a drain under the floor of the church atrium at Khirbat al-Karak (Delougaz and Haines 1960:9) and two pipes formed of *imbrices* carried water from a settling tank to church cistern at Mamphis (Negev 1988b:57). It is the opinion of M. Beckmann that some of the tiles recovered in B600 were in secondary use. This opinion is supported by their small number when compared to the 300 tiles reported from Ḥorvat 'Ammudim (Adan-Bayewitz 1982:25).

Table (*cont.*)

Object #	Thickness	Portion	Fabric Colour / Surface Colour
TJ 1221	2.0	end fragment	10YR 8/3, very pale brown / 10YR 6/1, gray
TJ 1222	1.4–1.8	edge fragment, ridge broken	7.5YR 7/4, pink / 7.5YR 8/2, pinkish white
TJ 1276	1.8	edge fragment, ridge broken	5YR 7/4, pink / 10YR 7/3, very pale brown
TJ 1336	1.5–2.0	end fragment(?)	5YR 7/4, pink / 2.5YR 7/2, pale red
TJ 1391	2.0	edge fragment, ridge intact	10YR 7/3, very pale brown / 10YR 6/1, gray
TJ 1393	1.4–1.7	edge fragment, ridge broken	10YR 6/6, red / 5YR 8/2, pinkish white
TJ 1419	1.6	end fragment	10YR 6/6, red / 10YR 8/2, very pale brown
TJ 1420	1.3	end fragment	5YR 6/4, light reddish brown / 2.5YR 5/4, reddish brown
TJ 1421	1.7	fragment	10YR 7/2, very pale brown / 2.5YR 6/2, pale red
TJ 1456	1.6	edge fragment	2.5YR 6/8 / light red, 5YR 7/4, pink
TJ 1584	1.9	end fragment	10YR 6/6, brownish yellow / 10YR 7/3, very pale brown

Parallels

Roof tiles from a number of Roman–Byzantine period sites provide examples of their style. While scholars recognize that many tile fragments go unreported and unpublished, Briend and Humbert (1980:83) can cite 28 sites where tiles are known to be found, and note that their list is incomplete.

Tell Keisan: Forty one tile fragments were reported (Briend and Humbert 1980: figs. 28–28), including one corner piece (1980: fig. 27:5).

A short note by J. Glass (1980:87) points out that petrographic analysis demonstrated that the composition of the tiles is completely different from the pottery groups at the site. He suggests that a type of unfired cement may have been used, in view of the lack of a core colour.

Horvat Ammudim: The fabric of the Type 1 *tegulae* and of the *imbrices* from the synagogue is described as ‘hard’ with elongated voids resulting from the inclusion of organic material. The presence of plaster adhering to the *tegulae* is indicative of the place where the *imbrex* was attached (Adan-Bayewitz 1982:25: fig. 4).

Jarash: Roof tiles, found in a stack on the floor of the Church of Bishop Isaiah, appear to be *ca.* 35.0 cm in width and *ca.* 45.0 cm in length (Clark 1986:317; pl. X:19). Two styles are represented, those with a lip on two opposing edges, and those with a lip on three sides (Clark 1986: pl. XIV:28).

Siyāgha (Mount Nebo): The tiles recovered from various loci in the town of Nebo may date to various periods, a judgment based on the different styles of rim or flange (Schneider 1950:133; fig. 15). Several tiles (579, 583, 585, 588, 590) retain fragments of cement, indicating that these tiles were not held in place by gravity alone.

ʿAyn az-Zāra (Callirrhoe): Red ware *tegulae* with white slip were recovered with ceramics and glass in the final Byzantine period occupation of the site (Clamer 1997: pl. 11:11–13).

Umm al-Rasas: A sounding under a pavement located one *tegula* (Alliata 1991: fig. 24:25) in association with broken pottery, while other tiles were scattered in the debris (Alliata 1991: fig. 23:15). Examples of *tegulae* from the Church of St. Stephen were noted along with *imbrices* (Alliata 1987: figs. 4:6; 5:24).

Aqaba: Although identified merely as a “tile” in Table 1, this ceramic *tegula* from the kiln area at Aqaba (Surface and Wall A phase) appears to be a typical roof tile (Melkawi, ʿAmr, and Whitcomb 1994: fig. 11:1).

LIMESTONE PLAQUES

Two unusual objects consist of small stone slabs, each perforated with one or more drill holes. The function of these objects is uncertain; they may have been attached to a feature or suspended for a specialized use. The limestone is smooth but there is no evidence of repeated smoothing nor does it appear to have functioned as a sharpening tool. For these reasons, these objects were identified as possible wall plaques.

Catalogue

TJ 1224 (D23:23/45). Limestone with drilled hole; L 9.0, W 8.2, T 1.9 cm; broken.

TJ 1942 (Fig. 6.4:7; D23:45/74). Limestone with two drill holes; L 7.3, W 5.1, T 1.9 cm; broken.

Description: Plaque 1942 has a well preserved upper left hand corner, but is broken through the second hole. Two shallow grooves run horizontally, apparently as a guide for the position of the holes.

LINTELS

In Building 600, several Iron Age door lintels were left in place and reused, either as a support for architecture in an upper storey room (R602+603), or as a lintel over a doorway between two lower storey rooms (R607 and R616). In the debris filling Doorway AA, there was a fallen lintel stone with two crosses carved in low relief¹¹ and one cross carved in a circle. The stone is broken and the crosses are aligned on the left. In the centre is a Greek or 'Maltese' cross with four equal arms in a circle,¹² while the two flanking crosses have thin arms and a long vertical stem, each member ending in a small triangle.¹³ A depression in one arm of the 'Maltese cross' suggests that the lintel was reused at some point during the life of Building 600.

Catalogue

TJ-D23/L 1 (Fig. 6.5:1; D23:1). L 113.0, W 43.0, T 24.0–33.0 cm; broken.

¹¹ Another example of a lintel stone with a cross in relief was located *in situ* over the entrance to a church at Umm al-Surab near the Syrian border (King *et al.* 1983: pl. XCIV:1, 2).

¹² This style of cross with triangular arms appears on candlestick lamps at such sites as the cave Mugharet Abu Halimeh at Silet edh-Dhahr (Sellers and Baramki 1953: fig. 54:195, 254), while another lamp has a cross with elongated arms ending in small triangles (fig. 56:215). The extensive use of the Maltese cross can be seen in its presence throughout the Near East; for example, four such crosses in a row are carved on a stone inlay on the pulpit of the Coptic Church of Sts. Sergius and Bacchus in Cairo (personal observation, June 2007).

¹³ Crosses with four straight-sided members equal in length, such as the cross in high relief on a building stone from Mamphis (Negev 1988b: photo 144 = fig. 16:255), are not included in the parallels. This same design with splayed arms ending in triangles appears on a seal used to stamp jar handles at Ramat Rahel (Aharoni 1964: fig. 9:4), and on glass stamps from Sardis (von Saldern 1980: pl. 28:669).

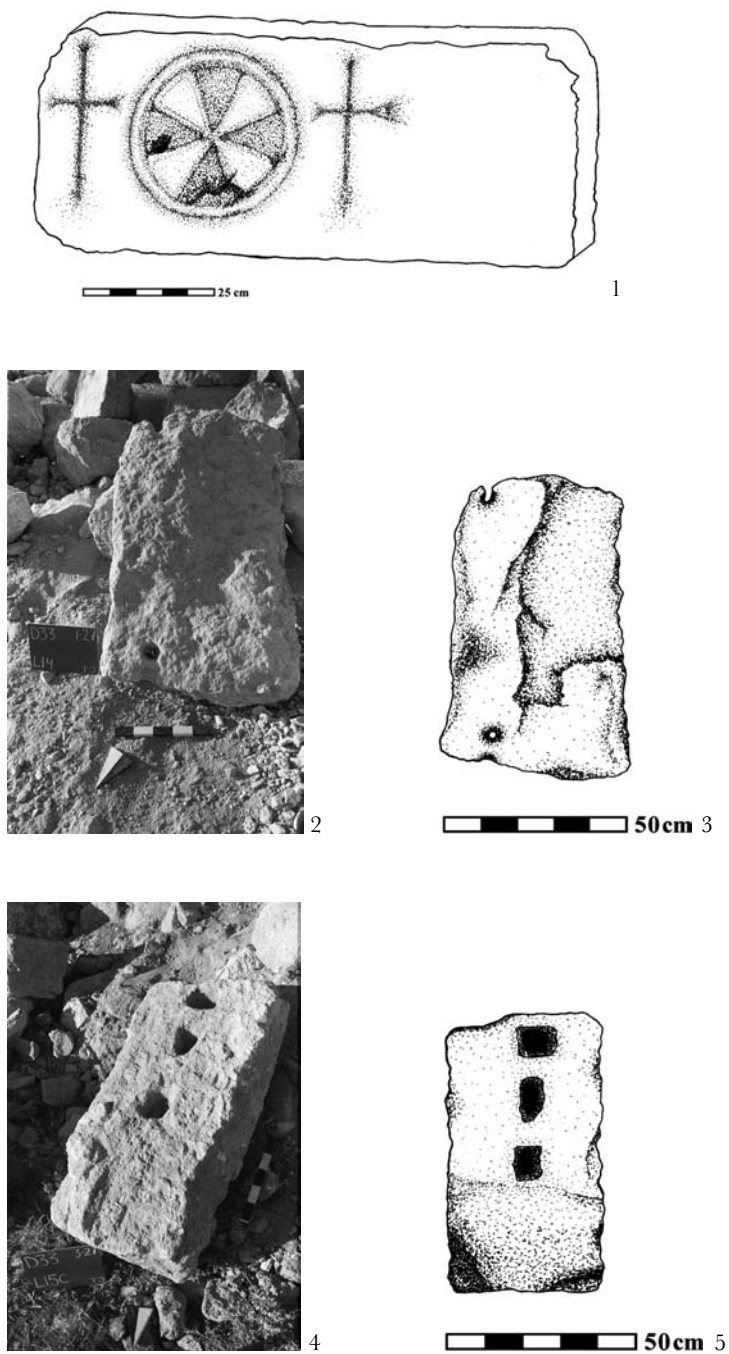


Figure 6.5. Lintels, 1) TJ-D23/L 1. Lintel stones; 2, 3) TJ-D33:14; Door frame stones; 4, 5) TJ-D33:15.

Parallels

Luzit: Inscriptions in the burial caves at Luzit in the Shephelah are accompanied by incised crosses of both styles, the Maltese cross and the cross with feet (or open triangles) on each branch. Two Maltese-style crosses are within circles, one within an inscription (Di Segni 1990a:315), and two others incised on the walls of arcosolia (Avni and Dahari 1990: figs. 1, 2). The footed cross appears both within a circle and alone at the beginning of a text or within the text itself (Di Segni 1990a:315–316), as well as on the back walls of arcosolia (Avni and Dahari 1990: fig. 3).

Herodion: A cross with an elongated vertical element, similar to the style at Tall Jawa, appears at the end of mosaic inscription no. 3 (Di Segni 1990b:183).

Ma'ale Adummim (Khirbet el-Muraşşas): A Maltese style cross is the central element of an Aeolic-style capital in the refectory of the monastery (Magen and Talgam 1990: fig. 24); a second cross, thinner but similar in style was inscribed on the tombstone of Paul the presbyter (Magen and Talgam 1990: fig. 1).

Jerusalem: A lintel in a Jewish house dated to the period after the Persian invasion was reused, covering a Maltese cross with plaster (Ben-Dov 1982:260–261). This style of cross, although without a circle, also appears on lamps, such as one unprovenienced lamp from Jerusalem (Rosenthal and Sivan 1978: fig. 460).

Judean Desert Monasteries: Various styles of cross were incised in stone, carved in relief, formed in plaster, and painted on walls of the monastery buildings and monks' cells and caves throughout the region. A cross with four elements equal in length and triangles at the end of each element was one of three carved into the natural stone at Khallat ed-Danabîya (Goldfus 1990: figs. 3, 4), and another cross with the same features was formed of plaster in high relief on the wall of a cistern (Goldfus 1990: fig. 7). The same style of cross is also depicted on mosaic pavements, for example, at the beginning of two inscriptions at Khirbet el-Beiyûdât (Di Segni 1990c:270, Nos. 2, 5). At this site also, a Maltese style cross in a circle decorated one end of a reliquary (Hizmi 1990: fig. 17). At Mar Saba, an example of the cross with triangular ends appears painted on an altar column, while at Khirbet ed-Deir a cross, similar in style, is incised on the door jamb of a funerary crypt (Hirschfeld 1993:256).

El-Kurmul: At the site of Khirbet Carmel, south of Hebron, there were three churches, one of which (the South Church) had a lintel with three crosses carved in relief (Ovadia 1970:63).

Mampsis: Examples of comparable building stones with crosses can be found at Mampsis, where lintels, door-post capitals, and building stones bear the Maltese cross alone or in a circle (Negev 1988b: fig. 3:151; photo 90; fig. 8:81, 92; photo 93). As well, there is a Maltese cross in the mosaic floor of the entrance to the nave (1988b: photo 41). The cross with the long vertical element and small triangles at the end of each member is also present on a door post capital and on a lintel (1988b: figs. 3:86; 8:88).¹⁴

Rehovot-in-the-Negev: Here as well, the Maltese cross appears on a column drum and on building stones (Tsafrir 1988: ill. 7; fig. 46=ill. 249). The elongated cross with both closed and open triangles at the end of each element is also represented (Tsafrir 1988: figs. 47=ill. 250; 58=ill. 260).

Pella: A cross in relief on a marble chancel screen from Pella (Piccirillo 1993: fig. 697) is the closest parallel we have to the two crosses flanking the Maltese cross on Lintel D23/L 1. The same design, a cross with thin branches each ending in a small triangle, appears painted in the centre of a bowl. Here too the vertical stem is longer than the horizontal arms (Piccirillo 1993: fig. 704).

Khirbat al-Samra: Among the crosses incised on tomb stones in the cemetery, Type D is a narrow cross with a long central stem. Each branch ends in a V (Desreumaux and Humbert 1981: pl. XVI:D). Other crosses, close in style to the Maltese cross, are carved in relief on a lintel and enclosed in a circle (Desreumaux and Humbert 1981: pl. XV:152).

Jarash: A fine example of a lintel with three Greek crosses, each in a circle, was recovered in the Church of Bishop Marianos beside the Hippodrome (Gawlikowski and Musa 1986: fig. 4). This lintel measures 1.50 × 0.60 m.¹⁵

Jordan: Sites in the south of Jordan have lintels with Christian symbols carved more crudely than those found at sites in the north. One example is a lintel at the site of Ruwāth (Robatha), southwest of Gharandal (Walmsley and Barnes 2002: fig. 3). These Maltese style crosses date back to the 5th and 6th centuries AD and continue in

¹⁴ These triangles appear either open or closed at the extremities; at Mampsis, all appear to be closed.

¹⁵ The stone measures 0.25 m in thickness, from the carved face to the quarter circle space for a wooden beam. Crosses with four equal arms appear in Jarash bowls (Watson 1989: fig. 2b:v), as well as crosses with jewelled ends which are present on bowls from both Jarash and Pella (Watson 1989: 1989: fig. 7:9, 8; Piccirillo 1993: fig. 704).

use through the Late Byzantine period. The Tall Jawa lintel was more than likely re-used in Building 600 and the crosses may have been hidden during the final occupation by other architectural elements.

Ma'in: Decorated capitals from the ruins of 'Ayn Qattara have floral designs accompanied by a Maltese or Jerusalem-style cross with four branches of equal length (Piccirillo 1993: figs. 326, 328). A lintel and another capital have a 'cosmic' or Maltese cross in a circle (figs. 321, 322; see also fig. 316).

Umm al-Rasas: A well-preserved lintel with three incised crosses, a Maltese cross in the centre and two simple crosses on either side, fell into the northern courtyard of the Chapel of the Peacocks (Piccirillo 2002b: figs. 15, 17).

Karak Muba: Among the lintels is one with an elaborate design of a cross inside two linked squares tied with a knot. To one side is a wild goat eating leaves on a tree (Piccirillo 1993: fig. 718).

Petra: In the Byzantine church at Petra, there is a lintel stone with a maltese cross which was found plastered over and re-used during a non-Christian re-occupation phase (Fiema *et al.* 2001:92–93). Other similar lintels with three designs, each within a circle, are found at Ayla-'Aqaba, and Dayr 'Ain Abata (Zayadine 1994: figs. 8–11).

Catalogue

TJ-D33:14 (Fig. 6.5:2, 3). Lintel; L 0.80, W 0.50, T 0.05–0.10 m; broken.

TJ-D33:15 (Fig. 6.5:4, 5). Limestone lintel; L 80.0, W 44.0, T 20–23.0 cm; three depressions.

Two architectural stones, both fallen in the debris of Room 606, are also broken. One lintel is quite rough and has two socket depressions, one at each end; the best preserved is 11.0 cm from the long edge with a diameter of 4.5 cm and a depth of 6.0 cm. The second stone is better dressed and has three depressions and may have been part of a door frame.

SOCKET STONES

Socket stones were made from limestone boulders and embedded in the floor surface. The characteristic which distinguishes socket stones from boulder mortars is the conical shape of the depression, rather than one that is hemispherical, and the deeply grooved spiral impression. These

sockets are a common feature at sites and were often reused from one period to another.

Catalogue

TJ 165 (Fig. 6.6:1; D12:1). Limestone boulder; D 25.0–22.5, H 22.0 cm.

TJ 228 (Fig. 6.6:2; D22:5). Limestone boulder; D 30.0–33.0; H 24.0 cm.

THRESHOLD STONES

One limestone threshold, Architectural Fragment 4a+b=TH 1 (Fig. 6.6:3), found loose in D23 debris, was broken in two pieces and chipped on one side. This threshold had a rim around three sides and a depression on one of the narrow ends. The best preserved example of a threshold (Fig. 6.6:4; D21:6=TH 2) is the one located in Doorway CC, between Rooms 603 and R604. There are two parts to this threshold, a long rectangular sill without depressions and the rectangular threshold with a socket hole and a locking depression. A single stone in Doorway DD (Fig. 6.6:5; D22:23=TH 3) is the central locking hole for the door to Room 605.

Parallels

Buṣrā: A rectangular threshold stone was in place at the entrance to each room in the Umayyad building (Wilson and Sa'd 1984: top plan). In several instances, there was a second rectangular stone built up against the threshold, forming a sill (Wilson and Sa'd 1984: pls. 1:3, 2:2, 4).

Dhībān: Among the architectural elements, a limestone threshold was recovered on the surface (R 40.1; Tushingham 1972: fig. 36:2=pl. XLI:6), along with a chancel screen base.

VAULTING STONES

Collapsed in Room 604 were eighteen limestone vaulting slabs (Fig. 6.7:1, 2), all in the range of 0.30 × 0.40 × 1.50 m in size. These stones formed a ceiling supported by a lengthwise arch built of fifteen voussoirs. Linking the three arches in Room 606 were the vaulting stones which spanned the space between the voussoirs of the arches themselves.

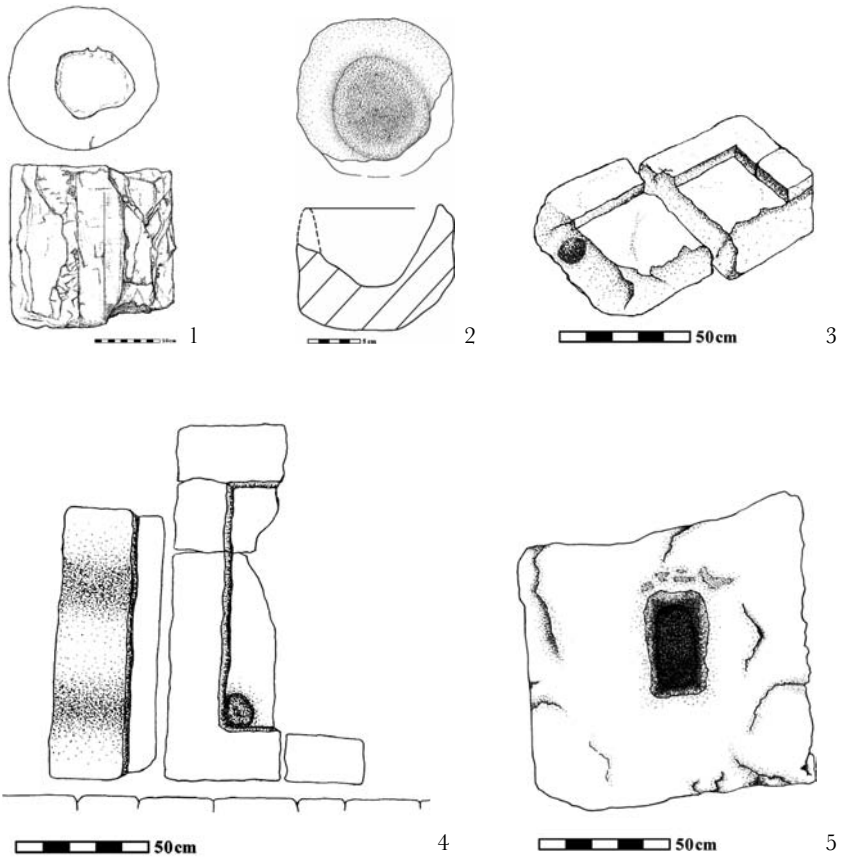


Figure 6.6. Socket stones, 1) TJ 165; 2) TJ 228; Thresholds; 3) Fragment 4a + b not *in situ*; 4) Threshold stone D21:6 from Doorway CC; 5) Locking stone D22:23 in Doorway DD.

VOUSOIRS

Three arches were relatively well-preserved in Room 606, while a single arch supported a ceiling over Central Hall 607. A lengthwise arch was present in Room 604, and a transverse arch spanned Room 602+603. The fifteen voussoirs recovered in Room 606 were each trapezoidal and measure in the range of 0.38×0.55 m, 0.28–0.35 m thick.

WINDOW STONES

Only one window stone was recovered and it was in secondary use in staircase support Wall 6020 (Fig. 6.7:3, 4). This feature, incised with a cross carved above the semicircular opening, was broken on both ends. The cross has four triangular arms of nearly equal length, but is not “Maltese” style. Two comparable window stones from Umm al-Rasas, one with two crosses and one undecorated, are now located in the garden of the monastery at Mount Nebo (personal observation, July 2007). As far as can be determined, this window stone was not associated with the window glass recovered in Room 605 on the upper storey, although the opening is similar in size to the crown window panes (see Chapter 14).

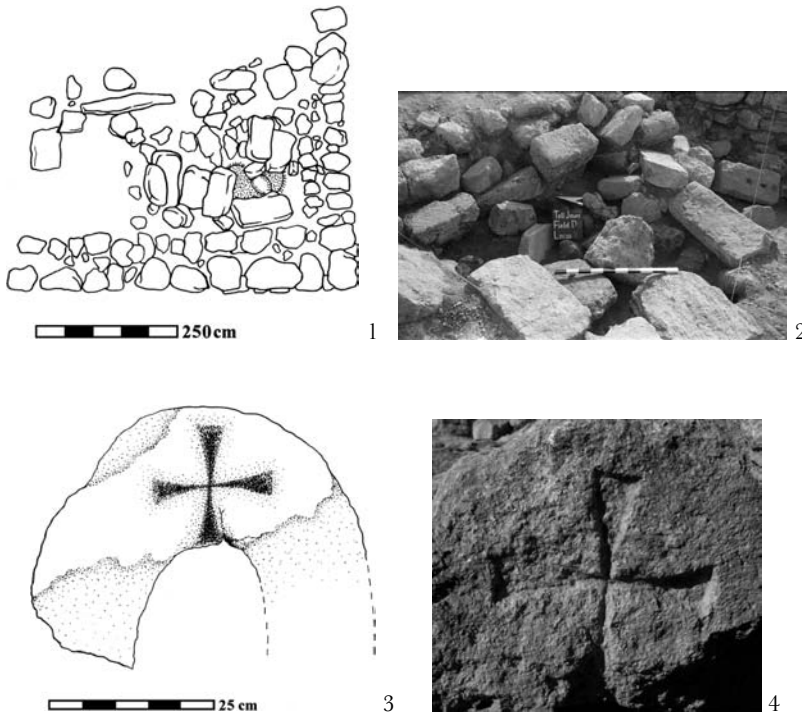


Figure 6.7. Vaulting stones, 1) Vaulting stones collapsed in Room 604; 2) Vaulting stones in Room 606; Window Stone; 3) Window with cross (D23:28); 4) Detail of the cross.

CHAPTER SEVEN

THE MULTIPLE BURIAL IN BUILDING 600 AT TALL JAWA

Margaret A. Judd

INTRODUCTION

Clusters of commingled and partially articulated bones were recovered from a reused room of Building 600 (in Square D22) at Tall Jawa during the 1993 and 1995 seasons (Fig. 7.1). The bodies were located in Corridor 617, a room in the centre of the house, flanked by Walls 6013 and W6015, which supported massive lozenge-shaped ceiling stones (D22:14; Figs. 3.2, 7.2; see Chapter 3). Artefacts associated with the grave fill (D22:15–18) include a ceramic smoking pipe (TJ 836), tesserae, chert flakes, and one basalt pestle (TJ 918) (Daviau 2002: CD-ROM). Potsherds dating from the Iron II, Roman, Nabataean, Late



Figure 7.1. Commingled bones in Room 617.



Figure 7.2. Ceiling slabs spanning Walls 6013 and 6015 above Corridor 617.

Byzantine, and Umayyad periods indicate that the burial likely occurred during or after the Umayyad Period. Bones of sheep, goats, chickens, and ungulates were intermingled with the human remains, while the bones of rodents, cats, dogs, and birds were interspersed among the fallen stones, which may be due to their own misadventure after the building collapsed.

METHODOLOGY

The human remains and burial context in Field D provide an intriguing and interpretively challenging problem for bioarchaeological research. The bones are in poor condition with the majority of the elements broken or incomplete and weathered to Stage 4 on Behrensmeyer's scale (1978). The first task was to separate the human from nonhuman bones, and then to calculate the Minimum Number of Individuals (MNI) for the humans that are represented by the conglomeration of bones; both the side and developmental stage of growth were considered (White 1992:84–89). Some bones could not be associated with any individual and are appended as 'Unmatched Bones.'

The demographic profile for each individual assesses biological sex, age-at-death, and stature following the protocol presented below. This is complemented by a descriptive inventory of the major skeletal elements, dental inventory, metric traits, nonmetric traits, and a detailed pathological summary. The demographic profile was evaluated as follows:

Biological Sex

The biological sex of an adult skeleton is traditionally determined by macroscopic observation of the skull (nuchal crest, mastoid process, supraorbital margin, prominence of glabella, and mental eminence) and pelvic morphology (greater sciatic notch, presence of preauricular sulcus, and subpubic region) as summarized by Buikstra and Ubelaker (1994:16–21). Phenice's (1969) method of differentiating between the sexes by the subpubic morphology of the ventral arch, subpubic concavity, and ischiopubic ramus ridge remains the most reliable. However, these elements are not always available or are too fragmentary and, therefore, long bone metric data must be used to determine the biological sex of the adults, as described by Bass (1987).

To date, there are no dependable macroscopic methods of determining the sex of children, although methods are occasionally investigated (e.g., Buikstra and Ubelaker 1994:16; Hunt and Gleiser 1955; Loth and Henneberg 2001) and molecular investigations have proved successful (e.g., Götherström *et al.*: 1997; Richards and Sykes 1995). Following Buikstra and Ubelaker (1994:9), the biological sex category assigned to each adult was one of: undetermined (inadequate bones), female, female(?), ambiguous, male(?), male.

Age-at-Death

In contrast to determining the biological sex of skeletal remains, age assessment of skeletal material becomes decreasingly reliable with age and ideally requires the pelvic bone for greatest accuracy (Krogman and Iscan 1986). Pelvic degenerative characteristics of the pubic symphysis (Brooks and Suchey 1990; Suchey *et al.* 1986; Todd 1921a; 1921b), the auricular surface of the pelvis (Lovejoy *et al.* 1985) and the sternal end of the fourth rib (Iscan *et al.* 1984; 1985) are the preferred methods of assigning age categories to adults; if unavailable, cranial suture closure may provide an estimate but remains problematic (Buikstra and Ubelaker 1994). In the past, dental wear was considered useful

within a population (Brothwell 1981:72; Miles 1962:204) although issues such as differential access to food persisted. Most recently, Mays (2002) demonstrates a strong relationship between molar wear and documented age-at-death of an historic Dutch population so that dental wear could be considered as a relative aging technique within a skeletal sample.

The development of dentition and long bones allows for improved precision when aging non-adults. To assign age to the children, dental developmental stages described by Ubelaker (1984:115–116) were combined with long bone measurement criteria, visually summarised by Buikstra and Ubelaker (1994:45–46) from work by Fazekas and Kósa (1978). In cases where dentition was absent, long bone measurements were taken with sliding callipers, and age was assigned from growth charts presented by Scheuer and Black (2000).¹ Individuals were assigned to one of the following age groups (Buikstra and Ubelaker 1994:9): foetal (< birth), infant (birth–3 years), child (3–12 years), adolescent (12–20 years), young adult (20–35 years), middle adult (35–50 years), old adult (50+ years) and adult (age range undetermined).

Metric Traits

Cranial measurements were the mainstay of anthropological analysis during the discipline's formative period and they continue to be integral to identifying changing patterns in skull morphology evolution, marriage, ethnicity and migrations. Where possible, 18 measurements were taken from children and 34 measurements were taken from adults, following those recommended by Buikstra and Ubelaker (1994:45–46, 74–78). As mentioned above, postcranial data can be useful to determine the age, sex, or stature of the individual, as well as to identify variation in posture, handedness or activity (Steele and Mays 1995; Stirling 1992). Buikstra and Ubelaker (1994:44–46, 79–84) recommend that 24 subadult and 50 adult postcranial measurements be taken. The metrical data are appended (Tables 7A–7C).

¹ Age could only be assessed for one nonadult, Skeleton C, in which case the Table 11.7, page 395 was used.

Table 7A. Adult Cranial Metrics (mm).

Skeleton Measurement	A		B	E	F
	Left	Right	Right	Right	Right
Cranial length					
Cranial breadth					
Frontal chord	106.4				
Parietal chord	106.7				
Occipital chord					
Frontal minimum breadth	90.9				
Foramen magnum length					
Foramen magnum breadth					
Mastoid length	24.8	22.8			
<i>Mandible</i>					
Mandibular length	78.5				
Bicondylar breadth					
Chin height					
Bigonial breadth	92.5				
Ramus maximum height		57.9			
Ramus minimum breadth	32.5	31.7	28.0		26.5
Ramus maximum breadth		41.9	42.0		40.4
Mandibular body height					
Mandibular body breadth	18.1	18.1	10.1		
Mandibular angle (degrees)	114	118	135		125

M/L = mediolateral, A/P = anterioposterior

Table 7B-1. Adult Postcranial Metrics, Upper Body (mm).

Measurement	Skeleton A		Skeleton B	
	Left	Right	Left	Right
<i>Upper thorax</i>				
Manubrium length				
Sternal body length			101.7	
Clavicle length			144.9	146.5
Clavicle mid-shaft circumference	39.0		39.0	39.0
<i>Scapula</i>				
Glenoid length	37.5	36.9	38.9	
Glenoid width	27.1	25.9	23.6	
<i>Humerus</i>				
Humerus length			324.0	
Humeral head diameter		41.6	45.0	44.6
Humerus mid-shaft diameter maximum	21.6		22.1	

(Table 7B-1 continued on next page)

Table 7B-1 (*cont.*)

Measurement	Skeleton A		Skeleton B	
	Left	Right	Left	Right
Humerus mid-shaft diameter minimum	20.2		18.4	
Humerus circumference	64.0		65.0	
Humeral epicondylar width			60.2	
<i>Forearm</i>				
Radial length	215.0			255.0
Radial head diameter				25.4
Radial mid-shaft diameter M/L	16.3	16.4	15.9	14.9
Radial mid-shaft diameter A/P	12.0	11.5	12.2	12.1
Ulna length				
Ulna physiological length				146.0
Ulna least circumference	32.0			41.0

M/L = mediolateral, A/P = anterioposterior

Table 7B-2. Adult Postcranial Metrics, Lower Body (mm).

Measurement	Skeleton A		Skeleton B	
	Left	Right	Left	Right
<i>Femur</i>				
Length			442.0	
Head diameter			47.6	
<i>Tibia</i>				
Length			39.0	39.0
Distal breadth			47.8	48.3
Diameter at nutrient foramen M/L				22.6
Diameter at nutrient foramen A/P				34.4
Circumference at nutrient foramen				93.0
<i>Fibula and foot</i>				
Fibula length				388.0
Calcaneus length		82.4	86.0	86.5
Calcaneus breadth		42.7	52.3	52.4
<i>Patella</i>				
Articular length	32.2		35.6	34.1
Articular width	40.5		45.0	45.7

M/L = mediolateral, A/P = anterioposterior

Table 7C. Children's Cranial and Postcranial Measurements.

Measurement	Skeleton C		Skeleton D		Skeleton H
	Left	Right	Left	Right	Left
<i>Petrous portion</i>					
Length					
Width			22.1		
<i>Occipital base</i>					
Length	17.2		18.3		
Width	22.8				
<i>Zygomatic</i>					
Length				35.1	
Width				22.9	
<i>Mandible</i>					
Body length					
Arc width				26.2	
<i>Clavicle</i>					
Length		81.2			
Diameter		6.9	6.1	6.0	
<i>Scapula</i>					
Length		81.1			
Width		52.0			
Spine length					
<i>Pubis length</i>				28.2	
<i>Humerus</i>					
Length		156.0			
Width				25.0	29.8
Diameter		12.1		10.8	
<i>Ulna</i>					
Length					
Diameter	8.7	8.4		7.7	
<i>Radius</i>					
Length					
Diameter	8.0	8.1	6.9	6.8	
<i>Femur</i>					
Length	215.0				
Width	46.6				
Diameter	14.5	14.4			
<i>Tibia</i>					
Length					
Diameter	15.3			10.9	
<i>Fibula</i>					
Length				96.7	
Diameter	8.6	8.4		5.5	

Nonmetric Traits

Small, unmeasurable changes to the skull also facilitate the elucidation of social change, marriage patterns, migration or ethnicity within a sample, but are recorded only as present or absent (Ishida and Dodo 1993; Wijsman and Neves 1986). Here, 32 traits suggested by Buikstra and Ubelaker (1994:87–91) and 16 additional traits (Hauser and Stefano 1989) were selected for assessment. Postcranial anomalies are controversial and are now more commonly associated with activity rather than genetic factors. Nevertheless, 22 traits were examined and scored following Finnegan (1978). The skull and postcranial nonmetric traits observed are included within the individual profile.

Stature

The stature of an adult was estimated from tables produced by Trotter and Gleser (1952:497, 499) based on the combined lengths of the left femur and tibia. The landmarks for long bone measurement are summarized in Buikstra and Ubelaker (1994:79–84). Should the left femur and tibia be unavailable or pathologically affected, the bones of the right leg were selected, followed by the individual femur, tibia, fibula, humerus, radius, and ulna. In many cases long bones were incomplete and therefore, regression formulae calculated for metacarpals (Meadows and Jantz 1992) or metatarsals (Byers *et al.* 1989) were substituted. Stature is stated in centimetres with a margin for error (plus or minus), and the bone used to determine stature is reported. Estimates of children's stature are not available from this geotemporal context.

Olivier (1969:283–284) extrapolated children's stature from the femur (mm), which permitted the assessment of stature for Skeleton C and is presented in the same manner as the adults.

Dental Inventory

The dental inventory is depicted schematically as per the universal system and the presence of each tooth is expressed according to the following scheme devised by Buikstra and Ubelaker (1994:49):

- 1= tooth present, not in bone;
- 2= tooth present in bone, complete development;
- 3= tooth missing, no associated bone;

4= tooth missing due to antemortem tooth loss, resorbed alveolar bone;

5= tooth missing due to postmortem loss, no alveolar resorption;

6= congenital absence of tooth;

7= tooth present but damaged;

8= tooth present, but unobservable (e.g., deciduous or permanent tooth in crypt);

Dental wear was scored according to the eight stages of Smith's (1984) study.

THE SKELETAL CATALOGUE

The following abbreviations were used in the catalogue:

Dentition: M (molar), PM (premolar), C (canine), I (incisor).

Extremities: MC (metacarpal), MT (metatarsal), PP (proximal phalange), MP (middle phalange), DP (distal phalange).

Skeleton A: Male, 35–50 years, 160.28 \pm 4.32cm (radius)

The remains of Skeleton A were heaped into the northeast corner of the room with the skull prominently placed on top of the bone pile. In addition to the cranium, mandible, thyroid, and hyoid, the upper body was most complete, though damaged. Large portions of the long bones of the arms and shoulder girdle were represented, as was the thorax and pelvis. The cervical vertebrae were accounted for, but only small portions of the lower vertebrae, sternum, and sacrum were recovered. Both patellae and fibulae were present; only the left femur was identified, although the remains of the other three long bones of the legs were likely included with the commingled fragments of long bones. Six metacarpals (MC), 4 left carpals, and 21 hand phalanges were recovered. All of the right metatarsals (MT) were accounted for; four partial tarsals and 12 foot phalanges completed the extremity inventory.

Dental inventory: $\frac{3\ 5\ 5\ 5\ 4\ 4\ 5\ 3}{6\ 4\ 5\ 2\ 5\ 2\ 5\ 4} \mid \frac{3\ 5\ 4\ 5\ 5\ 5\ 6}{4\ 5\ 2\ 2\ 2\ 4\ 6}$

Nonmetric traits: left/right mental foramen, left parietal foramen, right supraorbital foramen, left/right lambdoid ossicles, right sagittal sulcus flexure, left patellar vastus notch.

Pathology: Vertical bone loss was visible between the lower central incisors and the right lateral incisor; the central incisors were avulsed and the bone partially resorbed. The lower second molars were also avulsed antemortem and the alveolus nearly obliterated. The maxillary bone was remodelled and exhibited a 'ragged' appearance due to lack of teeth and various stages of bone loss. Thin cortical bone was broken postmortem and simulated an abscess, which is correctly identified by bevelled edges typical of bone regeneration before an individual's death. Here, maxillary abscesses were forming between the right M1, M2 and above the left M1. Porosity and bone remodelling were visible in the left maxillary sinus cavity. Only anterior mandibular teeth remained and all exhibited supragingival calculus deposits; the heaviest concentration was located on the lingual side of the canines, while the facial side of the dentition bore green subgingival calculus. Lineal enamel hypoplasia affected both mandibular canines. Three lines were present in each case and measured from the cemento-enamel junction: left canine (3.7, 5.1, 6.3 mm) and right canine (3.9, 4.1, 5.9 mm).

Abrasion was quite heavy and observed on all of the anterior teeth. The occlusal surface was worn down to the dentin, leaving a rim of enamel on the teeth (high score of 6 on Smith's scale). Dental chipping was extensive on both mandibular canines.

The muscle insertion points (*pectoralis major*, *extensor carpi radialis longus*, *brachialis*, and *deltoid*) of the upper body of this individual were extremely prominent on both sides, but most notable were those of the left arm. The forearms were similarly affected, but the markings on the left side were more rugose. Highly defined muscle markings included *anconeus*, *brachialis*, *supinator*, *biceps brachii*, *pronator teres*, *flexor digitorum superficialis*, and *pronator quadratus*. Marginal osteophytic lipping was visible on the anterior surface of both glenoid fossae, the right acetabulum, and the sternal end of the left clavicle; the sternal portion of the left clavicle was quite porous and 'puffy' in contrast to the right clavicle. The first metacarpals had strong attachments for the flexor *pollicis brevis* and *opponens pollicis*. Similarly, the *abductor pollicis brevis*, *adductor pollicis*, *opponens digiti minimi*, and *flexor digitorum superficialis* were prominent on both hands. Osteophytic extensions projected distally from the palmar head surface of both first metacarpals. Marginal osteophytes occurred on the lateral side of the proximal phalange bases of the thumbs.

The vertebral column did not escape the ravages of physical stress, although only the cervical elements were represented. The superior and inferior articular facets of the lower cervical vertebrae were expanded by osteophytic growth in surface area and were extremely porous.

Skeleton B: Male, 20–35 years, 170.24 +/- 4.05cm (humerus)

Skeleton B was the most complete adult found in this burial context (Fig. 7.3). The individual was lying supine with the scapulae, clavicles, thoracic and cervical vertebrae, and right humerus in articulation. The lower portion of this individual, also articulated, was located southeast of the upper body; the right leg was articulated with the pelvis, sacrum, and lumbar vertebrae; the left lower leg was also *in situ*. All of the cervical and lumbar vertebrae were retrieved, as were portions of the thorax, pelvis (including the right pubis), and patellae. Only the left mandible, hyoid, and a small portion of the left maxilla represented the skull. The first three metacarpals of both hands were present in addition to nine carpals and 18 hand phalanges. Portions of all of the left metatarsals, three right metatarsals, eight tarsals, and 14 foot phalanges accounted for the bones of the foot.

Dental inventory:
$$\begin{array}{r|l} 3 & 3 & 1 & 1 & 1 & 3 & 1 & 3 & | & 3 & 3 & 3 & 2 & 2 & 2 & 3 \\ 2 & 2 & 2 & 3 & 3 & 1 & 5 & 3 & | & 3 & 5 & 2 & 5 & 2 & 2 & 2 & 2 \end{array}$$

Nonmetric traits: left mental foramen, left/right tibial medial facet, right tibial lateral facet, right calcaneal double facet.

Pathology: Slight horizontal bone loss and ridging were generalized along the mandibular posterior alveolar process; the maxillae exhibited slight bone loss, but no ridging. A moderate amount of calculus accumulated



Figure 7.3. Skeleton B, looking east.

in a band on the lingual and buccal surfaces of the mandibular molar crowns, while slight calculus deposits clung to the maxillary molars. Tooth chipping was noted on the left mandibular PM2 and right I2, as well as on the PM1 of the right maxilla. Occlusal blunting of the cusps (equivalent to Smith's score = 2) and an earlier stage of periodontal disease relative to Skeleton A, suggests that this individual was younger, or at least had a diet composed of fewer rough particles.

Morphological variation was present on the third mandibular molars: the left molar had four cusps and closely resembled the second molar, while the right molar had five cusps, most commonly found on M1 (Hillson 1996:59). Dental crowding was unobserved.

Isolated patches of marginal osteophytes dotted the right inferior posterior facet of the fifth lumbar vertebra; the medial trochlear margin and the lateral posterior epicondyle of the left humerus; the elbows; the radiocarpal joints; and the talocalcaneal joints. The early stage of a Schmorl's node was on the superior body of the first lumbar vertebra. Eburnation was present on the medial palmar sides of the right proximal phalangeal heads of the second and third digits. Marginal osteophytic formation and eburnation was visible on the palmar surface of the medial heads of the corresponding middle phalanges. The attachments for the flexor muscles on the hand phalanges were pronounced.

Many joints of this individual presented slight osteoarthritic deposits, which likely did not interfere with daily activity. Spinal marginal osteophytes normally form on the lumbar vertebrae first, but on this individual the thoracic and cervical vertebrae were involved. Porosity, osteophytic lipping, and alteration of the joint contour modified the superior articular facets of two cervical vertebrae, but the bodies were unaffected.

Short perimortem cut marks sliced the posterior surface of both bones of the left forearm, with the ulna exhibiting four lesions and the radius only one (Fig. 7.4). The radius' V-shaped incision, drawn across the cortical surface of the distal radius, occurred at 33.6 mm from the radiocarpal joint on the posterior lateral aspect. This 6.5 mm long cut was 0.9 mm wide, and angled 60° from the central axis towards the radiocarpal joint with the sharp edge, on the distal side of the lesion, indicating the upward direction of the blow; in contrast, the proximal edge of the cut was irregular and slightly blunted.

The cut marks on the ulna were located superior to that of the radius and were the result of a greater force producing a bone 'notch' or 'cleft' and wastage (an avulsed bone chip), which would indicate that a chopping instrument was used (Byers 2002: 313). The most distal notch was



Figure 7.4. Cut marks on distal left radius and ulna of Skeleton B.

centrally located 49.0 mm from the radiocarpal joint and transverse in relation to the long axis of the bone. Like the radial cut, the distal edge of this ulnar cut was sharp and the proximal edge was bevelled, but in this case a small piece of bone was chipped off indicating a heavier instrument or more forceful blow; a short faint parallel cut was 1.4 mm proximal to this cut and measured 2.4 mm long. The third cut or gauge was 67.6 mm from the radiocarpal joint, angled about 135° from the central axis, with the distal side being the sharp edge. In this case, the cut was directed proximally, leaving a rough 'hinge' overhanging the greatest depth of the cut where a bone chip had broken off. The most proximal cut was 7.3 mm long and 1.3 mm wide, and was similar to the third cut in that it was directed proximally, 120° to the central axis, had a sharp distal surface and rugged proximal surface, and had a bone hinge from the impact of the cut. The centre of this cut was 83.0 mm from the radiocarpal joint and the chip removal area was 8.9 mm wide. A minimum of four blows were struck, likely while the individual was protecting his face. Had the individual survived, these cuts may have severed the *extensor pollicis brevis*, *flexor carpi ulnaris*, *flexor digitorum profundum*, and *extensor indicis*, which would have affected hand movement.

A slight linear depression occurred on the anterior medial surface of the left clavicle and may be the remains of a greenstick fracture. A transverse or healed stress fracture occurred on the shaft of the right MT4. When compared to the left MT4, the right bone measured 72.1 mm and the left measured 76.3 mm. New bone growth and osteophytic

spurs were visible on the dorsal surface of the proximal shaft and the shaft had a puffy appearance (9.2 mm vs. 7.1 mm).

Skeleton C: Child, 3.5 +/-1 years, 122.27 +/- 12.4 cm (femur)

This child was discovered lying on its right side with the left arm extended across the chest. The abdomen and legs were crushed beneath a stone (Fig. 7.5). The mandible was located directly above the ribs; the other skull fragments, represented by the occipital and the skull's left bones, were not *in situ*. All of the cervical, thoracic and lumbar vertebrae were present; two coccygeal fragments were recovered. Most major bones of the upper body were complete, although the metaphyseal portions of the right long bones and the body of the left scapula were absent. In contrast, the lower body was fragmentary except for the intact left femur; some segments of the other five long bones and the pelvis were represented. Four carpals, five metacarpal shafts, one tarsal, eight metatarsal shafts, and 18 phalanges constituted the remains of the extremities.

<i>Dental inventory:</i>	1 1 1 1 3 3 3 3 1 1	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	2 2 2 2 1 3 2 2 3 2	/ / 8 / / 8 8 8 8 8 / / 8 / /
	deciduous dentition	permanent dentition

The length of the femoral and humeral shafts indicates that the age of the child was likely at the higher end of the age range determined by the dentition. Aside from slight dental calculus on the occlusal surfaces of the deciduous maxillary first molars, no other pathological lesions were noted. The presence of calculus on the teeth indicates that the child was consuming soft foods, which did not require chewing, or was unable to chew due to infection.

Skeleton D: Infant, 2years +/- 8months, stature undetermined

The left zygomatic and petrous portion were the only complete skull bones of this individual. Fragments of the parietals, left frontal, occipital, right zygomatic and maxilla made up the remainder of the skull. Five cervical, 11 thoracic, five lumbar, four sacral, and three coccygeal vertebrae were counted; the manubrium was also recovered. Both clavicles were complete, as were the bones of the right arm; portions of the left forearm shafts were present. Eighteen rib ends were found, although many other rib fragments from the commingled context were likely those of this child. The pelvis was comprised of the right pubis,



Figure 7.5. The bones of Skeleton C found beneath a large stone.

fragments of the left pubis, and both ilia. A complete right fibular shaft and nearly complete right tibial shaft represented the bones of the legs. Extremities consisted of nine metacarpal shafts, six metatarsal shafts, and seven phalanges.

Dental inventory: $\frac{3\ 1\ 1\ 1\ 1\ | 3\ 1\ 1\ 3\ 3}{2\ 2\ 5\ 2\ 2\ | 2\ 5\ 5\ 1\ 1}$ (deciduous)

Skeleton E: Male(?), 35–50 years(?), stature undetermined

The anterior mandible and 11 loose teeth were recovered from Skeleton E and all were well-worn (high score of 6 on Smith's scale).

Dental inventory: $\frac{1\ 3\ 1\ 3\ 1\ 1\ 3\ 3\ | 3\ 3\ 1\ 1\ 3\ 1\ 1\ 3}{3\ 3\ 3\ 3\ 3\ 3\ 5\ 5\ | 5\ 5\ 2\ 2\ 2\ 3\ 3\ 3}$

Pathology: Slight supragingival calculus occurred on all teeth except for the maxillary first molars, both of which exhibited considerable subgingival calculus on their buccal sides. Porosity and slight alveolar resorption were visible on the left anterior mandible. Generalized dental chipping was present on 9 of 11 teeth (82%) and is attributed to a gritty diet rather than use. The canine teeth exhibited the great-

est amount of traumatic modification. Faint lines of dental enamel hypoplasia were measured from the cemento-enamel junction of the canines: left maxillary canine (2.0, 2.9, 4.2 mm), right maxillary canine (2.1, 3.7, 4.9 mm), and left mandibular canine (3.2 mm). Because no postcrania were associated with this individual, the stature could not be determined. The dental wear pattern indicates that Skeleton E was older than Skeleton B, but younger than Skeleton A and therefore, likely fell between the two age categories and was closer to 35 years of age at the time of death.

Skeleton F: Female (?), 35–50 years, stature undetermined

Portions of the mandibular arcade, including the rami and condyles, were the only osseous fragments of this individual; three anterior mandibular teeth and the right upper central incisor were present. The absence of the postcrania and skull prevented a confident assessment of age and sex; similarly stature could not be ascertained. Like Skeleton E, the age of this individual was established from a dental wear comparison to the two aged individuals; the age-at-death lies between that of Skeletons A and B.

Dental inventory: $\frac{3\ 3\ 3\ 3\ 3\ 3\ 3\ 3\ 1}{3\ 3\ 3\ 3\ 3\ 3\ 1\ 1\ 3} \mid \frac{3\ 3\ 3\ 3\ 3\ 3\ 3\ 3}{3\ 5\ 3\ 3\ 3\ 3\ 3\ 3}$

Pathology: The mandibular teeth were heavily abraded to a score of '5' on Smith's scale; slight calculus deposits clung to the lingual and labial surfaces. Dental chipping was visible on the mandibular teeth, particularly on the mesial and distal edges of the incisors. The flattened and roughened bone of the mandibular condyles indicated temporomandibular joint disease.

Skeleton G: Infant, 1year +/- 4months, stature undetermined

The anterior parietals, left frontal, ulnae, right radius, left femur, and fibula shafts were represented by fragments of bone only. One cervical and five lumbar vertebrae were recovered along with fragments of seven other vertebrae. Two sternal bodies and the heads of 20 ribs completed the thoracic inventory. No evidence of pathological lesions was found.

Dental inventory: $\frac{3\ 3\ 3\ 1\ 3}{1\ 1\ 3\ 3\ 3} \mid \frac{3\ 1\ 3\ 3\ 3}{3\ 3\ 1\ 1\ 1} \quad \frac{///\ //\ //\ //\ //\ //\ //\ //}{//\ 8\ //\ //\ //\ 8} \mid \frac{///\ //\ //\ //\ //\ //\ //\ //}{8\ 8\ 8\ //\ 8\ //}$
 deciduous dentition permanent dentition

Skeleton H: Child, 3.5 +/- 1 year, stature undetermined

The basilar component and a fragment of the lateral occipital were the only cranial remains of this child. The thorax consisted of three cervical, three thoracic, and one lumbar vertebrae; 17 ribs; and portions of both scapulae. Both ischia and part of the right pubis represented the pelvis. The right clavicle was complete, but the other long bone segments (right/left humerus, right radius, right ulna, left femur, and tibiae) were fragmentary. Because no dentition or complete long bones were available, the skeletal fragments were compared to other nonadults; the size of the bones was most similar to those of Skeleton C. The few postcranial fragments did not reveal any pathological processes.

HEALTH AND LIFESTYLE

Dental Health and Diet

The dentition is the hardiest survivor of the human skeleton and perhaps the most informative as it provides a barometer of diet, nutrition, hygiene, subsistence strategy, and cultural practices. All excavated mandibles and maxillae were examined for the presence or absence of teeth, resorption of alveolar bone, abscesses, and temporomandibular joint disease (TMJD). Each tooth was inspected for eruption stage, dental wear, breakage, chipping, calculus, dental caries, cultural alteration, and habitual activity. The results are presented by tooth count to increase the sample size and allow for descriptive statistical comparison (Beckett and Lovell 1994). Thirty-six of a possible 128 adult teeth (based on four adults with normal dentitions of 32 teeth) were recovered (Table 7D). The canines were most abundant followed by premolars, molars, and incisors.

Table 7D. Adult Dental Inventory.

Tooth type	Recovered	Expected	Frequency
Incisor	4	32	12.5
Canine	8	16	50.0
Premolar	11	32	34.4
Molar	13	48	27.1
Total	36	128	28.1

Dental wear is an indicator of age, diet, and cultural activity. *Attrition* is caused by the natural tooth-to-tooth contact over time and thus indicates age, while *abrasion* is the loss of occlusal surface due to the types of food consumed, food preparation techniques, and habitual activities. Occlusal wear was scored using Smith's (1984) 8-stages of tooth wear and results are presented in Table 7E. Among adults, dental wear was seen to increase with age as expected. Tiny pinpricks of dental pulp were visible on the teeth of Skeleton B (Smith's scale '2'); while the exposed pulp of Skeletons A, E, and F scored higher (Smith's scale '6'). The presence of minor dental disease combined with dental modification due to cultural factors provided some insight into the adult diet of the group. The types and frequencies of dental disease are recorded in Table 7F.

Table 7E. Stages and Frequencies of Adult Tooth Wear.*

Wear Stage Tooth	N	1		2		3		4		5		6		7	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%
Incisor	4	1	25	—	—	1	25	1	25	1	25	—	—	—	—
Canine	8	2	25	—	—	1	13	—	—	5	63	—	—	—	—
Premolar	11	3	27	1	9	1	9	4	37	—	—	2	18	—	—
Molar	13	9	70	2	15	—	—	2	15	—	—	—	—	—	—
Total	36	15	42	3	8	3	8	7	19	6	17	2	6	0	0

*N = total number of teeth, n = number of affected teeth, % = $n/N \times 100\%$

Table 7F. Type and Frequency of Dental Disease.

Tooth	Calculus			Alveolar Resorption		LEH		Chipping		Abscess	
	N	n	%	n	%	n	%	n	%	n	%
Incisor	4	3	75	0	0	0	0	1	25	0	0
Canine	8	8	100	3	38	5	63	6	75	0	0
Premolar	11	10	91	7	64	0	0	5	46	0	0
Molar	13	13	100	8	62	0	0	3	23	3	23
Total	36	34	94	18	50	5	14	15	42	3	8

Alveolar resorption is caused by gingival inflammation or periodontal disease, both of which are predisposed by calculus and heavy dental abrasion, although advancing age and carious lesions are strong correlates. It is recognised by visible porosity, periostitis, and bone loss

of the alveolar margin (Lukacs 1989:271). This loss of tissue can be “localized” around individual teeth (vertical bone loss) or “generalized” (horizontal bone loss), affecting the entire dental arcade (Hillson 1996:263–265). The molars are most frequently affected, followed by the incisors, premolars, and canines (Scott and Turner 1988). Scoring of alveolar resorption was based on Brothwell’s (1981:155) visual system and Lukacs’ (1989:271) descriptive model. The amount of root exposed was observed and alveolar resorption classed as slight (1.0–3.0 mm), moderate (3.0–5.0 mm), considerable (5.0 mm+, tooth in socket), and severe (the tooth is avulsed and alveolus visible). Complete resorption occurs when the tooth is avulsed and the alveoli obliterated (Lukacs 1989:271).

Of the observable teeth, 18 (50%) were retained in the tooth socket and the alveolar process exhibited some degree of resorption. Contrary to the normal pattern, the premolars were most afflicted followed by the molars, canines, and incisors. Skeleton A was the only individual with an entire mandible and complete maxilla, which had three sockets (9%) missing; Resorption of the remaining 29 tooth sockets occurred as follows: eight (25%) teeth were lost antemortem and the sockets were partially resorbed; three (9%) third molar sockets were resorbed; and five (16%) sockets displayed vertical bone loss around the tooth. The remaining 13 (41%) teeth were missing postmortem, but signs of antemortem periodontal disease were present. The younger adults, Skeletons B and E, displayed no visible antemortem tooth loss, but slight alveolar resorption was evident. Resorption occurred on the 10 visible sockets ranging from slight to moderate for Skeleton B. Skeleton E retained three teeth in the alveolus and exhibited resorption similar to Skeleton B. Considering that all of the individuals had calculus deposits on their teeth, as well as heavy abrasion, the presence of alveolar resorption increasing in intensity with age is not unexpected.

Calculus is mineralized bacterial plaque that coats the tooth’s surface and may aggravate gingival tissues. Calculus is typically located on the lingual side of the anterior teeth and buccal side of the molars, locations close to the salivary glands that secrete the nutrients necessary for plaque mineralization, which in turn produce calculus (Hillson 1996:254–5). The catalyst for calculus formation is unknown, but a low pH encourages plaque to mineralize; a diet high in protein maintains a more alkaline oral environment as the slower fermentation of protein and fat does not increase the acid balance. In contrast, carbohydrates and sugars, particularly soft, sticky foods such as dates, honey, and fruits

are quickly fermented by bacterial plaque to produce acids capable of demineralising dental enamel, thus producing dental caries, particularly in the furrows and fissures of the teeth where acid can burrow (Hillson 1996:277). A more alkaline oral environment may decrease an individual's susceptibility to dental caries, while increasing an individual's vulnerability to dental calculus. Dental calculus may also protect the enamel from dental caries formation by encrusting the crown in a heavy deposit. Furthermore, a gritty diet functions as a natural oral cleanser by dislodging clinging food particles that encourage the formation of carious lesions or alternatively, these coarse particles may camouflage the existence of occlusal carious lesions by wearing down the afflicted area (Powell 1985:314).

Dental calculus was scored using a visual system created by Brothwell (1981: fig. 6.14) that classed calculus accumulation as slight (small patches on the tooth crown), medium (continuous deposit, e.g., a strip or large patch along the tooth crown), and considerable (large clumps extending onto the root). Of the 36 teeth examined, 94% had slight calculus deposits, but no carious lesions were present, although this may be a factor of small sample size and missing teeth.

Abscesses are the result of pulp exposure leading to bone necrosis, the final product of severe carious lesions, heavy attrition, or tooth fracture (Hillson 1996:284). The resulting pus usually drains onto the buccal side of the face, but may appear on the lingual side, nasal cavity, or in the maxillary sinus. Only Skeleton A presented the early stages of abscess formation above the first maxillary molar on each side.

The absence of dental caries and the presence of calculus suggest that the diet of this group was not high in sugars and starches; therefore, one might suspect that the adults relied on a diet high in animal proteins (Rose *et al.* 1985). Though endemic, the calculus deposits were slight, and when combined with heavy dental wear, grains are indicated as a second contributor to the diet. The high frequency of dental chipping, particularly among the canines points to the teeth being used to crack nuts or seeds, or perhaps they were used as a tool. Leek's (1972) analysis of ancient Egyptian bread samples revealed a variety of added 'temper'—insects, sand, bone chips, flint chips from broken sickles, and basalt chips from stone grinders—similar ingredients that could easily have found their way into the baked bread at Tall Jawa.

Dental enamel hypoplasia (DEH) arises due to disruptions during the enamel formation process and denotes developmental stress. Insufficient enamel thickness results typically in the form of horizontal bands around

the tooth crown (Hillson 1996:165). Although DEH can be genetic or due to trauma, the majority of archaeological and clinical cases have attributed DEH to nutritional and health disturbances during childhood, such as malnutrition and parasitic infections (e.g., Goodman and Rose 1991; Malville 1997; Wood 1996) or intensified agriculture (Lukacs 1989:276); dietary disturbance due to weaning has been proposed, but remains controversial (Judkins and Baker 1996). Linear dental enamel hypoplasia (LEH) was present in this skeletal sample and occurred on the canines of Skeletons A and E. That LEH affected half of the adults observed, but was absent on the other two adult dentitions may be due to the lack of canines and incisors recovered. Though a small sample, it appears that most of the adults of this generation suffered from nutritional stress during their childhood.

TRIALS AND TRIBULATIONS OF DAILY LIVING

Physical impairments or degenerative diseases did not burden Skeletons A and B, but other health problems existed. Both individuals display moderate amounts of porosity and marginal osteophytic lipping that affected the articular facets of the cervical vertebrae, while the lower vertebrae remained unaffected. This is unusual as osteoarthritis normally ascends the spinal column from the lumbar to the cervical vertebrae (Shore 1935a; Shore 1935b). Lovell (1994) observed a similar phenomenon among Bronze Age Harappans and attributed cervical osteoarthritis to carrying loads on the head, however, clinical findings regarding the aetiology of cervical vertebral osteoarthritis and osteophytosis remain controversial (Jager, *et al.* 1997; Scher 1978).

A second manifestation of osteoarthritis occurred on the hands of both individuals. Both hands of Skeleton A were affected by osteoarthritis with marginal osteophytic growth confined to the palmar heads of both first metacarpals and the corresponding proximal phalange bases. This pattern of osteoarthritis is supported by Waldron's (1993) survey of clinical and archaeological samples that found that osteoarthritis of the first metacarpal and its phalanges was the most frequent location for hand osteoarthritis. Extremely strong muscular attachments were present on the bones of both hands, as well as on the arms, as described in the skeletal catalogue. This individual was involved in a very demanding activity that required the use of the upper body as well as the hands. In contrast, the lack of robust muscle insertions and

absence of osteoarthritis on the joints of the lower legs indicate that habitual strenuous activity involving the upper body was more common for this individual, while excessive walking, running, or activities requiring extensive use of the lower limbs was of lesser importance. While some researchers have speculated on the activities that could produce specific suites of musculo-skeletal stress markers (Kennedy 1983; Kennedy 1989; Lambert 1997; Merbs 1989; Steen and Lane 1998), others caution that any number of activities are capable of producing similar osseous transformations (Stirland 1991; Wakely 1996). Skeleton B showed the early stages of a similar pattern of osteoarthritis.

Skeleton B was the only individual affected by traumatic injuries. Two minor fractures occurred well before death. The transverse and anterior midshaft location of the clavicular fracture is typical of a direct force rather than an indirect force, such as that received from a fall on an outstretched hand resulting in an oblique fracture line (e.g., Loder and Mayhew 1988). The transverse fracture of the right MT4 is also indicative of a direct blow, or perhaps due to habitual stress on the foot from excessive walking or running.

The cut marks of Skeleton B's left forearm are more sinister in nature. The position of these five lesions on the distal posterior forearm shafts is characteristic of injuries sustained during a defensive action when raising the arm to shield the face. The location and direction of these injuries on the left arm indicate that an assault was made by a sharp-edged weapon, brandished in the right hand of the attacker. The proximally directed near-vertical clefts and bone hinges on the ulna place the attacker above the victim for at least two of the blows. There was no evidence of healing and the injuries, therefore, occurred near the time of death.

THE BURIAL CONTEXT

The inclusion of animals with human burials is not common among intentional burials in this broad geotemporal context. At first, one might suspect that the humans and animals were killed *in situ* by a building collapse, perhaps during one of the frequent earthquakes that devastated the Levant (Russell 1985). However, this is unlikely as the skeletons of the humans were not complete or in relative articulation, nor were the postcrania of the ungulate or other animals present articulated, as was the case at Pella where two contexts of animals and humans trapped

under earthquake rockfall were exposed (McNicoll and Walmsley 1981; Smith 1981). The faunal remains in Building 600 were part of the fill context, although the presence of the ungulate skull is irregular.

Not all of the human postcrania were accounted for, especially the robust long bones of the adults, and two inhumation styles were present, primary articulated and secondary disarticulated burials. One explanation is that some of the skeletons were transported from other places for burial at Tall Jawa, with only select bones recovered. However, the bones present were not the long bones, but were the clavicles, scapulae, foot bones and phalanges—bones that are not easily recovered to transport to a new burial location.

A more parsimonious explanation is that portions of the original interred individuals were pushed aside to accommodate a secondary or tertiary period of reuse, which was common practice for this region in Antiquity (Brashler 1995; Cheyney 1996; Nabulsi 1996; Smith and Zegerson 1999). This would explain the presence of the two distinct locations of the disarticulated bone piles and account for the absence of many of the bones, particularly those of the earlier children's burials, which would have been easily damaged during rearrangement, or been carried off by scavengers. The bones of the individuals pushed to the southwest side of the tomb may have in fact been pushed partially out of the tomb, rather than to the rear of the chamber and consequently subjected to a greater variety of taphonomic processes. Tomb robbing would also rationalize the disturbance of bone, particularly the last articulated interments. In contrast to the method of desecration observed by Cheyney (1995), where the bones were systematically sorted into one pile, the robbing of this tomb may have been a hastier affair.

In its original use phase in Building 600, Corridor 617 was a roofed room covered with large stone slabs (D22:14), which served both as a ceiling and as the floor of an upper-storey walkway leading from Room 605 to Stairway D23:43, west of Central Hall 607 (see Chapter 3, above). Because no rockfall was uncovered at the lowest level, the room likely went out of use, was blocked off from Room 607, plastered over, and gradually filled with debris deposited from the upper level. At other Islamic period sites, rooms often went out of use and the ground level was elevated with fill, particularly subsequent to earthquake damage or in order to concentrate the living space during times of turmoil (see Mare 1991; McNicoll and Walmsley 1981:243). The loci containing rockfall, perhaps deposited during an earthquake, sealed the fate of this

room, and the ground level was raised to the top of Wall 6027 where the articulated and partial skeletal remains were arranged. Above this surface, the soil loci contained a heterogeneous mixture of potsherds and animal bones, indicating that a similar fill accumulated above the human remains.

CONCLUSIONS

Burials during the Early Islamic period were not typically in a house, but normally occurred in cemeteries or in constructed tombs away from the settlement. For some reason, these individuals were kept close to the community, or may have been interred near the end of the community's occupation, or were deposited by transient pastoralists, and a period of time elapsed between interments. Because only a portion of Tall Jawa has been excavated and other burial contexts have been found on the site, the true demographics and funerary programmes for the various periods of occupation of this community have yet to be revealed.

APPENDIX 1: UNMATCHED BONES

Adult Bones

Clavicle: 1 left, 1 right
Humerus: 1 distal left, 1 distal right
Ulna: 1 distal left
Tibia: 1 distal left
Fibula: 1 distal left, 1 distal right
Scapula: 1 left, 1 right
Ribs: 9 left heads, 6 right heads
Patella: 1 left
MC2: 1 right
MC3: 1 left
MC4: 1 left
MC shafts: 3
Saphoid: 1 right
Hand phalanges: proximal (2), middle (2)
MT1: 1 right
MT2: 1 left, 1 right

MT3: 1 left, 2 right

MT4: 1 left, 2 right

MT5: 1 left, 2 right

Calcaneus: 1 left, 2 right

Talus: 2 left, 1 right

Cuboid: 1 right

Navicular: 2 right

Cuneiform 1: 1 right

Foot phalanges: proximal (10), middle (3), distal (2)

3 cranial vaults were identified in the subsidiary balk

PART THREE
POTTERY AND ARTEFACTS

CHAPTER EIGHT

THE POTTERY: A FUNCTIONAL AND FORMAL TYPOLOGY

P. M. Michèle Daviau

INTRODUCTION

Excavation in Building 600 produced an important corpus of early Islamic ceramic wares and mould-made lamps (Chapter 9).¹ In a previous study (Daviau and Beckmann 2001), a preliminary typology was prepared consisting of a small corpus of painted wares and the best preserved channel-nozzle lamps recovered during the 1991–1993 seasons. Comparison of these vessels with those from sites with pre-Umayyad, Umayyad, and Abbasid occupation posed some problems concerning chronology and regional variation.² The current study of the entire corpus makes it possible to refine our initial typology and contributes to a better understanding of Building 600 in its historical setting.

REGISTRATION SYSTEMS

All diagnostic sherds and lamp fragments were given pottery registration numbers in the field (Field+Square/Pail number.Sherd number; D2/19.11).³ This code is an abbreviated form of the complete

¹ The ceramic database consists of *ca.* 1900 registered sherds, some of which have been mended and renumbered as a vessel (for example, V601). The lamps and lamp fragments are included in a separate database on the DVD.

² These problems continue to plague archaeologists. For a recent attempt to refine the ceramic chronology, see Stacey (2004).

³ On the sherd itself, the Square number is followed by a dot, instead of a slash, in order to avoid confusion with the numeral '1' (for example, D2·19·1). In the text, the slash is used before the pail number to distinguish pail numbers from locus numbers, which are preceded by a colon (D2:3). This system works well when both the locus number and pottery pail number are used to indicate the stratigraphic location of ceramic material (D2:3/8.1).

registration number, which includes the Field+Square:locus number/pail.sherd number (D2:3/8.1). During each field season, intact vessels, or those fragments with significant cultural value, were assigned object numbers in the range of TJ 1–TJ 2238 (Daviau 2002:20–23), and registered with their Field+Square/Pail number.Object number (e.g., D12/9.138); this was also true for intact lamps and certain lamp fragments.⁴ Apart from complete lamps and inscribed lamp sherds, only two vessels were assigned object numbers, an intact biconical jug (TJ 142=D12:4/9.1=V634)⁵ and an inscribed sherd belonging to a partially restored cylindrical jug (TJ 138=D2:11/19.1=V618). Two other non-diagnostic sherds (TJ 359 and TJ 1005) were classified as ostraca and registered as objects (see Chapter 11).

In the lab, partially restored vessels were assigned vessel numbers in order to simplify discussion and serve as the link for one or more registered sherds; for example, V635 includes two registered sherds (D23/32.8+D23/36.1).⁶ The vessel numbers for late Byzantine–early Islamic style wares are all in the range of V600–V699 and V1500–V1599, while lamps were allocated vessel numbers between V1600–V1699.⁷ The painted pottery and lamps presented in the initial study by Daviau and Beckmann (2001) were subsequently assigned vessel numbers, since many of these vessels are now more completely restored. Every attempt has been made to mend as much of each vessel as possible in order to limit the number of sub-types, and avoid the danger of misrepresenting the corpus.⁸

⁴ For a list of lamps and lamp sherds that were assigned object numbers, see Table 9A. At the end of each season during the division of finds, certain of these lamps were chosen for the National Museum by the Department of Antiquities. During the 1991–1995 seasons, all samples/objects (broken or fragmentary artefacts) were numbered sequentially, even though only a small number of objects were considered to be of museum quality.

⁵ The number of intact ceramic vessels is very small; even in the case of jug V634, the spout is missing.

⁶ Body sherds were not registered in the field; they were kept with their diagnostics. Those body sherds from disturbed loci that had no apparent relationship to the diagnostics of a given locus were discarded.

⁷ Iron Age vessels from the original construction phase (Building 700) were assigned vessel numbers in the range of V700–V750 (see Table 2C, above).

⁸ In certain cases, it is clear that two sherds are part of a single vessel (identical fabric, firing, and rill marks distinct from other sherds); these are said to “mend” even though in fact they do not. This system is used so that quantification of the collection is possible using the database included on the DVD. Thus, each record represents one registered sherd. However, for a vessel or a group of ‘mendable’ sherds, the sherd with the lowest registration number is the controlling record; and only this record is complete.

In the Catalogue entries which follow the discussion of types and sub-types within each class, individual vessels are identified by their vessel number (V#) followed by the figure number within the text and the complete registration number (note 3, above). An individual sherd is indicated by its sherd registration number (Field+Square:Locus number/Pottery Pail number.Sherd number) followed by the figure number.

The description in the text includes the style of the rim, the maximum dimensions in centimetres, first for the rim, its D(iameter) and its T(hickness), and where relevant the neck D(iameter) or the body D(iameter), and the total preserved H(eight). Munsell Soil Color Codes⁹ are given for the fabric, the core (when needed), the slip and the paint. The condition of each entry appears last (sherd, [a group of] sherds, broken, or a partially restored [vessel]). Full details of lip form, rim stance and profile, as well as body type, base form, amount preserved, colour codes, and explanatory comments for the vessels and all other diagnostic sherds are included in the database on the DVD (see Chapter 16). By an agreement with the Department of Antiquities of Jordan, all pottery from Building 600 is on permanent loan at Wilfrid Laurier University, Waterloo, ON, Canada.

FUNCTIONAL CLASSES AND TYPES

The corpus is organized according to functional classes, each represented by a letter (A–Z; Table 8A). Within each class, the shapes are ordered from open to closed forms beginning with small bowls, because the bowl form is the most common vessel type from each locus and, as a result, will most often be present at the beginning of each chronological, stratigraphical or functional assemblage. The next step is to assign criteria that distinguish one class from another. Within a given class, there may be several types and subtypes distinguished on the basis of

Thus a search on Class=Bowl will yield each distinct bowl form, not 3 separate sherds for the same vessel (see Chapter 16).

⁹ The Munsell colour codes given in the Catalogue and in the database are from various editions of the Soil Color Charts. More recent editions, especially the one available on the web, are more refined than that used at the time of discovery. Nevertheless, these basic codes should serve to distinguish individual ware types and their surface treatment. The usefulness of this colour coding system for ceramic analysis was noted by Shepard (1965:107) who emphasized the value of “equal visual spacing of color” in the Munsell charts.

body shape, rim form, presence or absence of handles, style of base, and surface treatment. While this list is incomplete because it changes with each class, the criteria set out at the beginning should serve to identify the range of types and subtypes within a given class.

Although Hendrix *et al.* (1997:26) suggest that function is an imprecise method of classification, their form-based system includes terms such as ‘sugar pot’, which is clearly a functional term, instead of ‘V-shaped or conical container/pot’. What is useful in their study is the notion that form (or type) is directly related to shape and size. However, shape and size ultimately derive from function, because the same bowl shape can be used for small, medium and large vessels, yet each may have its own specific function. A small bowl could be used for food consumption or to contain a small amount of some material, whereas a medium or large size bowl or krater may be used for serving.

The current study¹⁰ presents a functional classification of ceramic vessels, beginning with vessels used for food consumption and preparation (cups, bowls, kraters, cooking casseroles, casserole covers, and deep cooking pots). This is followed by the various containers used to serve and store liquids (bottles, strainer jugs, and spouted jugs). Smaller containers, such as juglets, were probably multi-functional, serving as containers and dippers for various liquids in food preparation, as well as for cosmetic or medicinal use. Utilitarian items, such as lamps, lids, lanterns, and small and large basins may have served either a domestic or industrial function. Storage vessels are present in the form of pithoi, small, medium, and large jars, as well as amphorae. Each class is subsequently divided into types (1–99) and subtypes (a–z; Table 8B),¹¹ dependent on formal differences and other features, such as fabric and surface treatment (Watson 1989:227).

¹⁰ Initial research was supported in part by a short term research grant from Wilfrid Laurier University (No. 00-4512).

¹¹ The same class codes are used here as in our initial study (Daviau and Beckmann 2001:266–268), and the variant codes remain the same as well. However, these codes have now been integrated into the larger classification system of class and type codes (Q2, variant a=Q-2/a).

Table 8A. Codes for Functional Classes of Ceramic Ware Form Types.

A. Cups	M. Lids
B. Bowls	N. Lanterns
C. Kraters	P. Pithoi
D. Cooking Casseroles	Q. Small Jars
E. Casserole Covers	R. Medium Jars
F. Cooking Pots	S. Large Jars
G. Bottles	T. Amphorae
H. Strainer jugs	U. Small Utilitarian Containers
J. Jugs	V. Basins
K. Juglets	W. Drain Pipes
L. Lamps	Y. Miscellaneous

Table 8B. Codes for Assignment of Classes, Formal Types, and Special Features (Sub-Types).

Classes	Types	Sub-Types	Variants	Sigla
A-Z	1-99	a-z	1-99	A-1/a-1

Although a number of vessel types are known to have parallels at well-attested late Byzantine (*ca.* AD 491–640) sites, these sherds have been assigned type codes in the same range as the early Islamic vessel types, since individual vessels may have continued in use during the pre-Umayyad transition period. Sherds representing several types of later material, such as a brittle ware cooking pot (V1203),¹² several smoking pipes, and Arab Geometric (Ayyubid/Mamluk) painted wares, were present in the debris layers within and around Building 600; these intrusive materials are described in the final report of the Tall Jawa survey of the site and its surroundings (Daviau, ed., in preparation). What is noticeable is the absence of glazed ceramics, as well as vessels with sgraffito incising or with ‘Kerbschnitt’ decoration.

¹² A brittle ware cooking pot at Palmyra is dated by al-As‘ad and Stępniewski (1989:211; fig. 5:4) to the Umayyad period (level II in Sounding N), although this vessel type is more often assigned to the Fatimid period (5th century AH; Northedge 1992: fig. 137:5).

TERMINOLOGY

Formal types are based primarily on size and body shape; for example, within the class of bowls, the most open form is obviously the straight-sided bowl, but other forms are more difficult to position in the transition from open to closed. For our purposes, the following types are included: straight-sided, curving-sided, hemispherical, bent-sided, and vertical-sided bowls. At the same time, within certain or these classes, the rim stance or rim shape contributes to the overall form, such as the cyma rim, the triangular everted rim, and the bevelled rim.

In an attempt to identify formal types that are outside the well-known published forms dating to the late Byzantine and early Islamic periods, certain forms are designated by terms that are only relatively accurate. For example, medium size ‘jars’ (Walmsley 1995: fig. 6.2; Daviau and Beckmann 2001: fig. 4:16, 17) are sometimes listed as “cratères” (Humbert 2001: figs. 3–5) or ‘amphorae’, although they are clearly not the utilitarian trade amphorae known from Gaza or other sites on the coast of Palestine. The terminology used in this catalogue and in the database for lip shape, rim stance and rim profile (Table 8C) is adapted with certain modifications from Hendrix (*et al.* 1997), Sauer (1986), and Schneider (1950). Terms used to identify body shapes (Table 8D), bases (Table 8E), handles (Table 8F), and surface decoration (Table 8G) are drawn from a variety of sources.

Table 8C. Terms for Lip Shape, Rim Stance, and Rim Profile.

Lip Shape

Thinned	Tapering edge or end of rim
Rounded	Round end of simple rim, not thickened
Flattened	Flat or nearly so on upper edge or end

Rim Inflection

Vertical	Upright; vertical or nearly so
Straight	Continues the line of the body (either inwards or outwards)
Sloping	Changing direction from the body or shoulder; used when the rim rises at an angle from the shoulder or when a sherd is broken at a point where the relation to the wall is not fully preserved
Offset	Straight, but on a different plane than the body or neck

(Table 8C continued on next page)

Table 8C (*cont.*)

Inverted	Sharp inward change of direction
Everted	Sharp outward change of direction
Flaring	Gentle outward bend
Incurving	Gentle inward bend (<i>cyma reversa</i> equals piriform; Schneider 1950:14)
<i>Rim Profile</i>	
Simple	Unthickened, usually with rounded, thinned or flattened lip
Thickened	Internally or externally thicker than the wall of the vessel
Triangular	Virtually triangular (either inwards or outwards)
Rectangular	Square or rectangular
Grooved	Rim with one or more grooves on outer surface
Ridged	One clear ridge on the outer part of the rim below the lip
Rolled	Thickened and round/bulbous, may be slightly flattened in section
Profiled	Externally thickened with ridge below the rim
Cyma	Two changes in direction within the rim area
Overhanging	Extending horizontally beyond the wall of the vessel
T-shaped	Both internally and externally thickened and protruding from the body in both directions
Bevelled	Flattened on an angle

Table 8D. Body Shapes.

Straight sided	Conical, straight walled bowl
Bent-sided	One change of direction
Carinated	Two changes of direction
Hemispherical	Half globular
Globular	Spherical
Piriform	Pear-shaped, with the maximum diameter in either the upper or lower half of the vessel
Oval	Evenly elongated
Biconical	Two opposing cones
Cylindrical	Parallel or vertical sides
Lentoid	Circular from the front and double lens-shaped (convex) from the side

Table 8E. Bases.

Round	Continues the wall of the body
Flat	Flattened bottom
Disc	Addition of a flat or slightly concave disc of clay
Button	Small pellet or knob on the base; not necessarily flat
Ring	Addition or formation of a ring that extends below the bottom of the pot
Pedestal	High ring or trumpet-shaped base
Omphalos	Pushed-up base with navel
String cut	Disc-shaped when removed from the hump; string spiral visible

Table 8F. Handles.

Loop	Pulled handle with round or oval section (vertical or horizontal)
Strap	Pulled handle with flattened or rectangular section
Ridged	Handle with one or two ridges on the outer surface
Folded	Folded, with one fold broader than the other

Table 8G. Decoration and Special Features.

Slip	Evidence for a coating of thin clay; usually white or red
Burnish	Evidence for compression of the surface
Paint	The addition of painted bands, wavy lines, floral motifs or other decoration
Wash	Used when white "paint" is applied to a vessel
Ribbed	Exterior surface treatment, shallow grooves forming wide gentle ribs
Grooved	Exterior surface treatment, sharp grooves placed close together forming narrow ribs
Incised	Combed decoration in bands or wavy lines
Punctured	Decoration consisting of punched depressions
Chiselled	Decoration consisting of a series of chiselled designs; post-firing

(Table 8G continued on next page)

Table 8G (*cont.*)

Kerbschnitt	Cut decoration on the outer surface; also called "slide cutting" or "chip carved"
Rouletting	Design impressed with a rolling tool which forms a repeating pattern
Collared	Collar set low on the neck; style of large jars
Gray ware	A type of gray fabric, either undecorated or with white paint
Red ware	A type of late Byzantine red fabric, used for cooking pots, casseroles, jugs, and small cups

THE CORPUS

Within each class, vessels are organized from open to closed forms. The criteria for each class and formal type are described, along with a discussion of forming techniques. In the case of sherd material, it is not always possible to describe the technological features in detail, however, whatever information is available is included here. This description is followed by a discussion of function and a catalogue entry for the best preserved examples of each type. Known parallels from contemporary sites are listed separately from north to south.

A. CUPS

Cups, or very small bowls, are present in three formal types, a shallow rounded body (convex), a hemispherical body, or a body with a straight or slightly concave outer wall. Several of these vessels were made of a hard, crisp ware on a fast wheel. A good example of a hemispherical cup is V668, which has a flat, string-cut base, rounded body, and thinned lip. The finest small cup (V629)¹³ has a ring base and an elaborate painted design on the interior.

¹³ In an earlier publication (Daviau and Beckmann 2001: fig. 2:6), V629 was in the class of bowls (Type B5). Since it now appears to have more features in common with the class of cups, it has been re-assigned to Type A-2 (see note 11, above). Where applicable, the catalogue description ends with a reference to the original publication.

A-1. Round-Bodied Shallow Cups

Criteria and Technology: The undecorated round-bodied cup is a small shallow vessel. A simple (unthickened) rim ends in a thinned lip, which is either upright or slightly everted (cyma rim) from a rounded body which is thickened below the rim. The cups in this group are wheel-made of relatively coarse ware. In this type, there are no cups sufficiently well preserved to determine their total depth or their style of base, although a slight groove appears just above the base of V667.

Function: There is no evidence to suggest that such small cups had any more precise function than that of a drinking cup (Schneider 1950:111) or small dish.¹⁴

*A-1/a. Simple Rim Shallow Cups**Catalogue*

V665 (Fig. 8.1:1; D21:20/10.15). Simple rim, D *ca.* 10.0, H 5.0+ cm; pink (7.5YR 7/4) fabric; broken.

Parallels

Amman: Small cups appear in several styles on the citadel; the closest parallel is cup 1674 (Harding 1951: fig. 2:32, 33). A more elaborate cup, decorated with a painted wavy line, is among the pottery from the palace (Olávarri-Goicoechea 1985: fig. 16:14).

*Siyâgha (Mount Nebo):*¹⁵ Among the 100+ cups recovered during excavation are cups with a simple rim and rounded body (Schneider 1950: fig. 13:2); additional examples were recovered during excavations in the 1960s and 1970s (Bagatti 1985: figs. 1:14; 11:15).

Madaba: This simple cup form appears among the pottery from House A, and numerous cups of various sizes (D 8.0–12.0 cm) were recovered in House B (Acconci and Gabrieli 1994: figs. 15:11; 37:135–136, 141–143, 145–146). Additional cups from a cistern have similar features (Acconci and Gabrieli 1994: fig. 56:50–53).

Ayn az-Zâra/Callirrhôé: A cup similar in shape is associated with the Byzantine pottery from Building A, Field II (Clamer 1997: pl. 17:8)

¹⁴ Vessels suitable for children's use are rarely discussed in the literature, but this function is an option in the case of these small cups.

¹⁵ The name *Siyâgha* is used here to refer to the earliest excavations (1935–1937) at the site of the basilica.

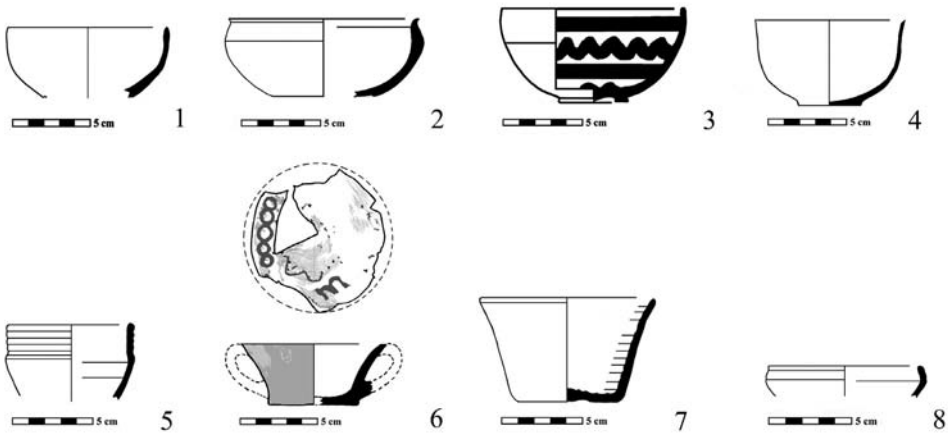


Figure 8.1. Cups: 1) V665; 2) V667; 3) V629; 4) V668; 5) V676; 6) V663; 7) V666; 8) D2/1.6.

This cup has a diameter of 10.0 cm, while a slightly larger vessel (D 14.0 cm) has the same formal features (1997: pl. 17:10).

Umm al-Rasas: A small cup from the upper surface of the north courtyard (Alliata 1991: fig. 16:8) of the church complex is slightly deeper than the Tall Jawa vessel, while a second cup from the dump excavated by Bujard and Joguin is relatively thick-walled (2001: fig. 3:19).

A-1/b. Cyma Rim Shallow Cups

The peculiar characteristic of this sub-type appears just below the rim, where the body wall is thickened out of proportion to the size of the vessel.

Catalogue

V667 (Fig. 8.1:2; D21:17/5.10). Cyma rim, D 10.8, H 4.3+ cm; pink (5YR 7/3) fabric, partially vitrified, light greenish gray (5GY 8/1) surface; partially restored.

Parallels

Tel Ira: Although the wall is thinned in contrast to the Tall Jawa cups, the size and rim form of Bowl 942/3 is similar (Fischer and Tal 1999a: fig. 6.134:5).

Amman: Several small cups found on the citadel have an everted lip; one of these is thickened below the rim (Harding 1951: fig. 2:44, 59).

Siyâgha (Mount Nebo): A cup with a simple rim has similar features including a thickening of the body wall at the point where the body curves toward the base (Schneider 1950: fig. 13:3).

Madaba: A number of these small cups with the thickened body wall appear in both House A and House B at Madaba as well as in debris layers to the east and in the foundations of the cistern (Acconci and Gabrieli 1994: figs. 19:64; 23:57; 37:147, 152; 59:3, 4, for example). A larger cup has a diameter of 13.0 cm (fig. 19:65). Additional examples come from a cave located during the 1993 survey of Tall Madaba (Harrison 1994: fig. 1:4, 5, 9).

A-2. Hemispherical Cups

A-2/a. Hemispherical Cups with Painted Decoration

Vessel 629 is the most finely produced cup in its class; in fact, it is one of the finest pieces in the entire corpus. The clay was finely levigated and formed a very compact fabric. The cup itself is hemispherical with a flattened low ring base,¹⁶ gray paint(?) on the exterior and rim, and a heavy, very pale brown to pink slip on the interior with reddish brown painted bands and wavy lines.

Catalogue

V629 (Fig. 8.1:3; D32:26/42.22). Simple rim, D 11.5 and T 0.4 cm, H 6.0 cm; light reddish brown (5YR 6/3) fabric, with gray (5YR 6/1) core; gray (10YR 6/1) band on exterior of rim, pink slip (7.5YR 8/4) on interior with reddish brown (2.5YR 5/4) paint, bands and wavy lines on side wall, one wavy line and a circle inside the base (Daviau and Beckmann 2001: fig. 2:6).

A-2/b. Hemispherical Cups without Painted Decoration

Criteria: A small number of vessels are assigned to this subtype. For the most part, they are slightly deeper than a true hemispherical vessel. However, their proportions fit best in this category. In one case, a cup (V668) has a vertical thinned rim and a disc base. Other sub-types, such as V676, have a slightly offset rim with exterior grooves. Four burnished

¹⁶ Three other examples of this style of base are present in the sherd material (13/87.4; 14/2.2; 32/48.7), although it is not clear whether these were the bases of hemispherical cups or of juglets.

ring base sherds may also represent cups, although the interior is not completely smooth (for example, D32/48.7).

A-2/b-1/a. Hemispherical Cups with Disc Base

Catalogue

V668 (Fig. 8.1:4; D32:21/37.3). Thin-walled cup, D 9.5, H 5.5, int Dp 5.3 cm; reddish yellow (5YR 7/8) fabric, with pale brown (10YR 6/3) core; partially restored.

Parallels

Pella: Small bowls in the same size range as the Tall Jawa cups are found in the late 6th–early 7th century assemblage (McNicoll *et al.* 1982: pl. 138:13).

Siyāgha (Mount Nebo): A thin-walled small bowl is a good example of this form (Bagatti 1985: fig. 1:18).

A-2/b-1/b. Hemispherical Cups with Ring Base

Represented primarily by lower body and base sherds, these cups have a flattened ring base.

Catalogue

D12/37.7 Base, D *ca.* 3.3 cm; reddish yellow (5YR 6/6) fabric, light red (2.5YR 6/6) ext; sherd.

D32/48.7 Base, D 3.5 cm; light brown (7.5YR 6/4) fabric, reddish yellow (7.5YR 6/6) ext; sherd.

Parallels

Ramat Raḥel: Among the cups from Stratum II are four which are close formal parallels (Aharoni 1964: fig. 22:1–4).

Nuseib Uweishāra: One example of an unpainted, burnished cup with a ring base is in an assemblage from the late 5th–early 6th century church (Netzer and Birger 1990:195–196; 199: fig. 21).

Jarash: Type 12A in Group XIII in the assemblage from the Macellum has the same features, including a flattened ring base (Uscatescu 1996: figs. 15:12A; 68:336).

Siyāgha (Mount Nebo): A number of small cups with ring base appear with interior painted decoration or with an incised wavy line on the exterior below the rim (Schneider 1950: fig. 13:13, 4).

Madaba: A number of cups from Field C, assigned to the Late Byzantine period, are slightly deeper than those at Tall Jawa (Harrison 2003 *et al.*: fig. 11:9–11).

A-2/b-2. Hemispherical Cups with Offset Rim

Catalogue

V676 (Fig. 8.1:5; D23:12/16.20). Offset rim; D 8.1 and T 0.5 cm, H 4.7+ cm; pink (5YR 7/4) fabric and exterior surfaces.

Parallels

Amman: A small bowl with a diameter of 11.0 cm (Koutsoukou and Najjar 1997: fig. 286) is the closest parallel to V676.

A-3. Straight-Sided Cups

A-3/a. Straight-Sided Shallow Cups with Painted Decoration

Criteria and Technology: This type of cup has a slightly flaring body and flat base. Only one shallow cup appears in this sub-type; V663 has concave sides and a simple rim with a thinned lip. Although both handles of V663 are missing, the stump of one handle and two scars on the rim indicate that there were originally two loop handles, which extended from the rim to just above the base. The wall of the vessel begins to flair out approximately one-third of the distance between the base and the rim; this shaping was produced by hand, rather than on the wheel. The finger impressions on the upper part of this bowl are deeper on the exterior surface and appear to be the work of a left-handed potter.

Catalogue

V663 (Fig. 8.1:6; D23:2/15.28). Cup, D 9.4, H 3.9, int Dp 3.4 cm; very pale brown (10YR 7/3) fabric, light red (2.5YR 7/6) exterior, white (10YR 8/1) int slip, red (2.5YR 4/6) paint on interior; soot stained; partially restored.

Decoration: Both the slip and the painted decoration are badly worn. However, it appears that on the interior, just below the lip, there was a row of red painted linked circles on a white slip. Additional decoration on the inner wall of the bowl is only partially preserved and cannot be identified with certainty. This is due in part to the fact that the interior is stained with soot, as if the cup was used

secondarily as a lamp. Small blotches of white slip are visible on the exterior, but appear to be accidental.

Parallels

Amman: Although cup 135 from the Umayyad Palace is undecorated, it is certainly similar in size and form to the Tall Jawa vessel (Olávarri-Goicoechea 1985: fig. 16:15).

A-3/b. Straight-Sided Deep Cups without Decoration

Criteria, Technology, and Function: The cups in this group are very crudely formed with deep rills on the interior surface, a pronounced swirl on the interior of the base, and a swelling on the exterior where the base was closed from the outside. The vertical wall flairs slightly and ends in a simple rim with a rounded lip. Such bowls are suitable as drinking cups.

Catalogue

V666 (Fig. 8.1:7; D21:17/8.12). Simple rim, D 11.0, H 6.5, int Dp 6.0 cm; pink (7.5YR 7/3) fabric; slightly vitrified, discoloured; partially restored.

Parallels

Jerusalem: A simple conical cup with deep rills on the interior was associated with typical Byzantine period pottery from the domestic quarter south of the Temple Mount (Ben-Dov 1982:257, lower left).

Ramat Rahel: Several crudely made conical cups are clearly the same small vessel type, although their rims are straight; two other conical cups, apparently of finer ware, have everted rims (Aharoni 1964: fig. 22:8–10 and 11–12, respectively).

Siyágha (Mount Nebo): Straight-walled cups, one with a flaring rim, are among small bowl forms (Schneider 1950: fig. 13:12).

Ayn az-Zâra/Callirrhôe: Several fine ware conical cups are represented in the assemblage from Building A in Field II (Clamer 1997: pl. 17:13–15, 17).

Dhībân: Two sherds, which appear to be from the same vessel, represent perfectly this style of cup. However, Tushingham (1972: fig. 4:65+66) assigns this form to the Nabataean material from Area V 4 at Dhībân.

Umm al-Rasas: Sherds of several cups in a fine ware were recovered from the surface in the church complex (Alliata 1991: fig. 19:23–25).

A-4. Red Ware Cups with Rounded Lip

Only one example of a Byzantine red ware cup is preserved. The three small sherds have a rounded lip and incurving rim with ribbing on the exterior.

Catalogue

D2/1.6 (Fig. 1.1.8). D 8.8; light red (2.5YR 6/8) throughout; sherds.

Parallels

Siyāgha (Mount Nebo): The closest parallel at Mount Nebo to this form in the same size range is an incurving-rim cup in gray ware (Schneider 1950: fig. 13:8).

Tall Madaba: A slightly thicker-walled version with a diameter of 11.0 cm was recovered from a cave located west of the Church of the Apostles (Harrison 1994:429; fig. 1:11).

B. BOWLS

B-1. Large Straight-Sided Bowls

Large bowl forms with straight, flaring sides are present in the corpus in both painted and unpainted examples. The painted bowls are decorated with designs on their interior surface (B-1/a).

B-1/a. Straight-Sided Bowls with Painted Decoration

Criteria and Technology: Classic examples of this type consist of straight walled open bowls with a tall ring base. The lip is rounded, while the rectangular rim continues the line of the body wall on the interior and is externally thickened.¹⁷ The two vessels which best represent this type were slipped on the interior and painted. Although their surfaces are worn and much of the decoration has chipped away, it is clear that each one has its own decorative pattern. The decoration of subtype B-1/a-1 consists of a floral motif, or sprig design, along with swirls and wavy lines, while that of subtype B-1/a-2 consists primarily of garlands with dots.

¹⁷ These bowls continue the tradition of the Jarash bowls, especially rim form 8a (Watson 1989: fig. 1).

These large bowls were wheel-made on a fast wheel in a very pale brown (10YR 8/4) to pink (7.5YR 7/3) ware. The exterior surface has a slurried appearance, comparable to Pella Ware K (Watson 1992: 242). Sherd material indicates that there were several bowls of Type B-1 which are all in the same size range with a rim diameter of *ca.* 30.0 cm.

B-1/a-1. Straight-Sided Bowls with Floral Motif

Catalogue

V624 (Fig. 8.2:1; D32:10/14.1). Rectangular rim, D 30.0 and T 0.9 cm, H 9.0 cm; very pale brown (10YR 8/4) fabric, pink (7.5YR 8/4) exterior surface, with white (7.5YR 8/1) slip, reddish brown (2.5YR 5/4) painted decoration on interior, painted stripes on rim; fragmentary (Daviau and Beckmann 2001: fig. 2:1).

B-1/a-2. Straight-Sided Bowls with Garland and Dot Motif

Catalogue

V625 (Fig. 8.2:2; D32:24/40.9). Rectangular rim, D 30.0 and T 1.2 cm, H 9.4 cm; pink (7.5YR 7/3) fabric, with pinkish white (7.5YR 8/2) slip, weak red (10R 4/4) painted decoration on interior and on rim; fragmentary (Daviau and Beckmann 2001: fig. 2:2).

Parallels

The Tall Jawa bowls share some characteristics with Jarash bowls,¹⁸ especially their open form and relatively shallow depth. Unfortunately, no exact parallels are known for both the form and the decoration together, although a few examples of bowls with similar decoration have been reported from other sites in the region. A variant is seen at Tall Jawa itself, where a small jug (V683) is decorated with a concentric circle and dot design.¹⁹

Buṣrā: The potters of Buṣrā used the circle and dot motif in a single register on the shoulder of a large jar, where it appears as semi-circles, as well as on the lower body of a another large jar decorated

¹⁸ See especially Watson 1989: fig. 13. However, the ware of the Tall Jawa bowls is very smooth and pale in colour by contrast with Jarash bowls (Watson 1989: 226–227).

¹⁹ This design may have already been in use during the Byzantine period, as seen on a cylindrical vessel from Jarash, on which a design of fish and dots was painted in red on a cream coloured slip (Amr 1989: figs. 1–3).

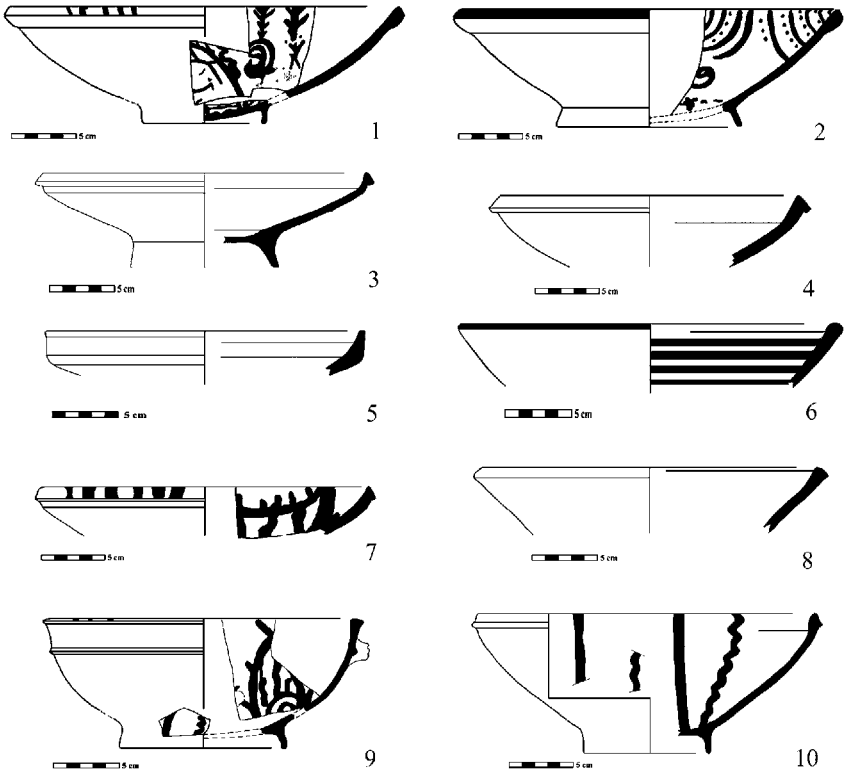


Figure 8.2. Large bowls: 1) V624; 2) V625; 3) V674; 4) V673; 5) D31/6.1; 6) V680; 7) V626; 8) D31/35.18; 9) V627; 10) V655.

with painted bands and a wavy line (Wilson and Sa'd 1984: figs. 501, 502).

Madaba: Sherds from the Byzantine period House B have a similar design in red paint on the interior surface (Acconci and Gabrieli 1994: fig. 37:134).

Nitl: Although a bowl from the Hypogean Tomb has a triangular rim, it is straight-walled with a painted design on the interior (Piccirillo 2001: fig. 9:1). In this case, the motif of straight bands, a wavy line and garland has some similarities to the painted cup (V629) from Tall Jawa.

Umm al-Rasas: Possibly in the same floral tradition is the beautiful carinated bowl with ring base from Umm al-Rasas; this bowl is painted

on its interior surface with a radial design of sprigs and wavy lines ending in a circle with a dot (Alliata 1991: fig. 13).²⁰

B-1/b. Undecorated Straight-Sided Bowls

There is only a small number of undecorated bowls in the assemblage; closer in form to the painted bowls is V674, whereas V673 is a thick-walled shallow bowl, with a slightly curved body.²¹

B-1/b-1. Undecorated Straight-Sided Bowls with Triangular Rim

Catalogue

V674 (Fig. 8.2:3; D31:21/47.2). Triangular rim, D 26.0 and T 0.8 cm, H 6.7, int Dpt 4.9 cm; pink (5YR 7/4) fabric, with reddish yellow (5YR 7/6) slip; partially restored.

Parallels

Jarash: The large straight-side bowl also appears in the *Macellum* assemblage in Group XIII (Uscatescu 1996: fig. 15:26).

Madaba: A large bowl with slip on both the interior and exterior is almost identical to V674 except for the dipinti decoration. This bowl is compared to a Jarash bowl dated to the 6th–first half of the 7th century (Acconci and Gabrieli 1994: fig. 35:108).

Umm al-Rasas: The large, relatively shallow bowl form is a continuation of the Jarash bowl tradition. One such bowl (Alliata 1991: fig. 16:6) can serve as a parallel to V674.

B-1/b-2. Undecorated Thick-Walled Bowls with Triangular Rim

Catalogue

V673 (Fig. 8.2:4; D31:18/35.2). Triangular rim, D 25.0, H 5.8+cm; pink (5YR 7/4) fabric, light brown (10YR 6/3) ext; broken.

Description: V673 is unique in that it has an accompanying cover (D21/5.4) with a grooved rim made to fit over the rounded lip of the

²⁰ The overall body shape with a change of direction in the upper body is closer in style to V628, see below.

²¹ Except for its thick body wall, this vessel shape is similar to that of certain covers or lids.

bowl's rim. By comparison with the other bowls in the assemblage, this vessel has no surface treatment and is thick-walled. It can be classified as a utilitarian vessel rather than a fine ware.

Parallels

Jarash: This rim form is seen on painted bowls as well as on undecorated examples (Gawlikowski and Musa 1986: fig. 7:5–7), although the painted bowl (7:5) is the closest parallel.

Umm al-Rasas: An inverted triangular-rim bowl (Alliata 1991: fig. 27:13) is similar in its stance to V673.

B-1/c. Undecorated Bent-Sided Bowls

The large bowls in this class are few in number at Tall Jawa, but have good parallels at Madaba, and Jerusalem,²² where they are dated to the 6th century. For the most part, this is a straight-walled bowl with a short rim that is thickened at the point where it bends upward and has a vertical stance up to a rounded lip.

Catalogue

D31/6.1 (Fig. 8.2:5). Bowl, D 24.0 cm; pink (5YR 7/4) fabric and exterior; light reddish brown (5YR 6/4) slip on interior; sherd.

Parallels

Jerusalem: Examples of Phocaean ware, in both large and small bowl types, are good examples of short rim style bowls (Hayes 1985: fig. 63:1–4).

Pella: Among the Phocaean imports are several styles of the short upright rim bowl, both plain (Watson 1992: fig. 13:113) and decorated.

Siyâgha (Mount Nebo): Three large shallow bowls with upright rim from the Chapel of the Theotokos are close parallels (Bagatti 1985: figs. 8:1; 10:15, 16).

Madaba: A number of bowls were recovered in House A, and the closest parallel among this group is Plate M9902 which has a “rosa-beige” slip (Acconci and Gabrieli 1994: fig. 18:48; see also figs. 15:8, 18:47; 23:53). Also close in shape is a bowl rim in the cave assemblage from the Tall Madaba survey (Harrison 1994: fig. 1:17).

²² The short vertical rim bowls are identified by Hayes as Phocaean red slip ware, an import that replaced African red slipped vessels (Hayes 1985:186).

B-2. Shallow Bowls

Criteria and Technology: Three vessels with interior decoration are represented in Type B-2; all are relatively shallow with curving sides. For the most part, the bowls in this type have a tall ring base. One bowl has a simple, rounded rim, while two vessels have a slightly thickened bevelled rim that is slightly undercut on the exterior. The exterior and the rim of V262 are covered with a very pale brown slip; perpendicular red painted stripes run around the upper surface of the rim. This rim form is similar to Form 8 (Watson 1989: fig. 1) among the Jarash bowls, although in contrast to the red wares of Jarash, the fabric of the Tall Jawa bowl is light gray to light reddish brown. On the interior is a painted design that runs either horizontally or vertically. In the case of V655, the interior design consists of alternating straight and wavy lines in a radial pattern.

B-2/a. Shallow Rounded-Rim Bowls

One vessel (V680), decorated with horizontal painted bands on the interior, best represents the sherds assigned to sub-type B-2/a. At the same time, there are no known parallels to the colouring of this bowl.

Catalogue

V680 (Fig. 8.2:6; D22:36/58.1). Rounded rim, D 28.0 and T 1.3 cm; pink (7.5YR 7/3) fabric, with very pale brown (10YR 8/3) exterior slip, gray (2.5Y 6/1) interior slip, weak red (2.5YR 4/2) painted bands; sherds.

B-2/b. Shallow Bevelled-Rim Bowls

Two styles of squared, bevelled-rim shallow bowls are represented in the corpus, bowls with a rounded body and those described as straight-walled bowls. Surface treatment also varies; the bowls in this type appear either with or without painted decoration.

B-2/b-1. Shallow Curved-Wall Bevelled-Rim Bowls

The bowl in this sub-type is similar to V673 (Fig. 8.2:4), although the painted motif and short rim set it apart. The basic body shape is rounded, whereas straight-walled bevelled-rim bowls (B-2/b-2) are more conical in shape.

Catalogue

V626 (Fig. 8.2:7; D32:42/66.11). Bevelled rim, D 26.0 and T 1.3 cm, H 4.1+ cm; light reddish brown (2.5YR 7/4) fabric, with light gray core (10YR 7/2), very pale brown (10R 8/3) slip on rim and exterior, red (10YR 4/6) paint on interior and on rim (Daviau and Beckmann 2001: fig. 2:3).

Parallels

The bevelled-rim bowl form appears to derive from the late Byzantine bowls with a folded, triangular rim, for example, the incised bowl from Ramat Raḥel (Aharoni 1962: fig. 3:10).

Madaba: Bowls with either a bevelled or triangular rim are present in both deep and shallow forms; the closest parallels are large bowls with a diameter of 24.0 and 32.0 cm respectively (Acconci and Gabrieli 1994: fig. 34:91, 92).

Umm al-Rasas: Two undecorated bowls, assigned to the Byzantine period, have a similar shape and rim (R 3144, R 3256), whereas a second bowl with an even deeper groove below the rim is decorated (Alliata 1991: figs. 10:21, 49; 22:14). A number of variants of this rim and body form were also recovered from the same context as bowls R 3144 and R 3256, indicating the popularity of this shallow bowl form in the late Byzantine period (Alliata 1991: fig. 10:19, 23–27, 48).

B-2/b-2. Straight-Walled Bevelled-Rim Bowls

Straight-sided bowls without surface treatment are more numerous at Tall Jawa than those with painted decoration. Only one of the bowls in this group has painted bands on the rim (D13.3.8), while a second sherd has pendant garlands (D31/45.9) on the interior surface.

Catalogue

D14/9.7 Bevelled rim; D 26.0 cm; light brown (7.5YR 6/4) fabric, reddish yellow (7.5YR 6/6) exterior.

D31/35.18 (Fig. 8.2:8). Bevelled-rim bowl, D 23.0 cm; pink (5YR 7/3) fabric, light brown (7.5YR 6/4) int.

D13/3.8 Triangular rim; D 29.0 cm; pink (7.5YR 8/4) fabric, pink (7.5YR 8/4) fabric, light red (2.5YR 6/6) ext.

D32/55.4 Triangular rim; D26.0 cm; pink (7.5YR 7/3) fabric, light red (2.5YR 6/6) exterior and interior.

D21/9.4 Triangular/T-shaped rim; D 27.0 cm; light reddish brown (5YR 6/4) fabric, weak red (2.5YR 4/2) exterior (soot stained).

D31/45.9 Triangular/T-shaped rim; D 26.0(?) cm; reddish yellow (5YR 6/6) fabric; light gray (10YR 7/2) interior, weak red (10R 4/3) paint, soot stained.

D32/4.1 Inverted triangular rim; D 26.0 cm; light reddish brown (5YR 6/4) fabric, very pale brown (10YR 7/4) slip.

Parallels

Jarash: Two straight-walled bowls are undecorated, except for perpendicular stripes on the rim; one bowl has a bevelled rim and is thick walled, while the second is deeper and thinner walled with a horizontally flattened rim (Schaefer and Falkner 1986: fig. 11:9, 11).

Siyâgha (Mount Nebo): Large shallow bowls with a triangular rim were associated with the 6th century mosaic pavement (Bagatti 1985:256; fig. 3:6).

Madaba: Certain bowls with a relatively straight body wall are shallow by comparison with those with curved walls; vessels comparable to those at Tall Jawa are present at Madaba with either a bevelled or triangular/T-shaped rim (Acconci and Gabrieli 1994: fig. 34:95–105).

B-3. Large Hemispherical Bowls

Criteria and Technology: Type B-3 is a deep bowl with rounded sides that is represented by only one vessel. This bowl has a rounded body, almost hemispherical in shape, and a tall ring base. Although only partially restored, it appears that there was a handle from the rim to the ridge below the rim on the body. The unslipped interior is decorated with swirls and sprigs and occasional wavy lines in weak red paint, while the rim is decorated with perpendicular red stripes.

B-3/a. Large Hemispherical Bowls with Rounded Rim

Catalogue

V627 (Fig. 8.2:9; D 32:24/40.1). Flattened rim, D 23.0, T 1.0, H 10.1 cm; light red (2.5YR 6/6, 5YR 6/4) fabric, with reddish yellow (7.5YR 7/6) core, weak red (10R 5/4) paint on interior; partially reconstructed (Daviau and Beckmann 2001: fig. 2:4).²³

The decorative motif consists of sprigs combined with wavy lines and swirls.

²³ Incorrectly described as covered with a very pale brown “slip” (Daviau and Beckmann 2001:267); in fact, the exterior and interior surfaces are unslipped.

Parallels

Umm al-Rasas: Although identified as a 'basin', vessel R 401 serves as a close parallel (Alliata 1991: fig. 15:8).

B-4. Large Rounded Bowls with Thickened Rim

A variant, with similarities to V674 (Fig. 8.2:3), is a deep bowl with curved body and a small folded rim pinched to form a ridge.

Catalogue

V655 (Fig. 8.2:10; D31/43.1). Bevelled rim, D *ca.* 30.0 and T 1.1 cm, H *ca.* 7.0+ cm; reddish yellow (5YR 6/6) fabric, with reddish brown (2.5 YR 4/4) paint, broken.

The radial design of alternating straight and wavy lines is relatively rare in the Tall Jawa corpus, although it appears at 'Amman.

Parallels

'Amman: A straight-walled, simple (rounded) rim bowl from the Umayyad palace has a similar design of alternating straight and wavy radial lines (Olávarri-Goiciechea 1985: fig. 17:2).

Siyâgha (Mount Nebo): The shape and rim form of an undecorated bowl is an example of the distribution of this type (Bagatti 1985: fig. 16:1).

B-5. Shallow, Vertical-Sided Bowls with Square Cut Rim

Criteria and Technology: The vessels in this type are wheel-made with a blunt square-cut rim, vertical sides, and a broad flat base. Only one bowl, partially restored, fits this type.

Catalogue

V664 (Fig. 8.3:1; D23/12.14). Shallow bowl; D 16.00, H 6.7, int Dp 5.4 cm; pink (5YR 7/3) fabric, with white (5YR 8/1) slip on the exterior; dark red (10R 3/6) paint on rim and on both interior and exterior surfaces; partially restored.

Decoration: The decoration on the flat rim of Bowl 664 is partially obscured by soot, but it appears to represent diagonal bands. On the exterior, there is a painted band below the rim and a red painted cross with an elongated vertical arm. Faint remnants of additional decoration suggest a zigzag pattern.

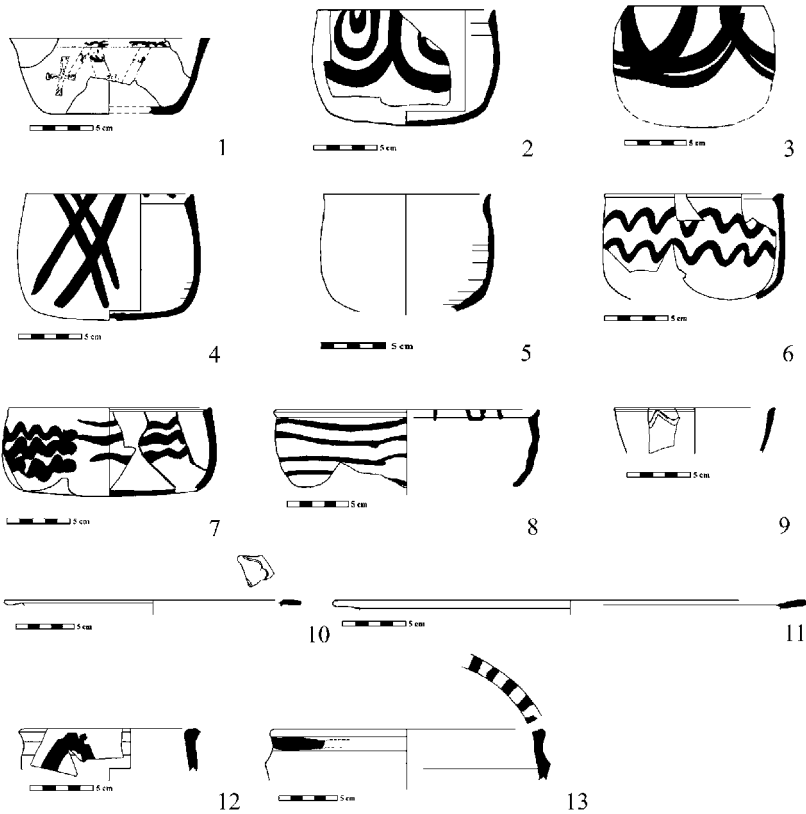


Figure 8.3. Bowls: 1) V664; 2) V630; 3) V654; 4) V631; 5) V632; 6) V651; 7) V652; 8) V633; 9) D12/30.18; Shallow plates, 10) D32/64.1; 11) 31/61.9; Thick-walled bowls; 12) D33/15.8; 13) D23/57.1.

Parallels

Jarash: There do not appear to be precise parallels for this size of vessel with a comparable decoration or shape, although two early Abbasid bowls from Jarash are evidence of a continuing tradition (Gawlikowski 1986: pls. XI:10; XII:8).²⁴

²⁴ The bowls shown in Plates XI and XII are unnumbered; item XI:10 (my number) is the vessel shown at the bottom, and XII:8 is the second from the bottom.

B-6. Deep Vertical-Sided Bowls

Criteria and Technology: The standard size (D *ca.* 12.0–14.0 cm)²⁵ vertical-sided bowl has a flat base, upright sides, an internally thickened rim, and a thinned lip, although other rim forms also appear with this same body shape. These bowls were produced in various wares ranging in texture from crisp to grainy and they fired from light red to pale yellow in colour. This is the single, most common bowl form from Building 600 with five painted bowls and two undecorated examples. Only one sherd (D23/18.24) is thin-walled; however, this vessel is not classified as a cup, although comparable fine ware vessels are so named (Northedge 1992: fig. 131:8), because the Tall Jawa vessel has a rim diameter of *ca.* 14.0 cm.²⁶

Decoration: Painted decoration consists of thick pendant garlands (V630),²⁷ straight crossed lines or lattice design (V631) or wavy lines (V652). Although these designs were painted free-hand, a similar thick stroke appears on bowls from many contemporary sites.²⁸ Type B-6 seems to have been a common form in the 'Amman area with examples from the 'Amman Citadel and al-Muwaqqar in central Jordan, as well as from the South Decumanus area at Jarash in the north, Pella in the Jordan Valley, Capernaum in Galilee, and from Umm al-Rasas to the south. Such a wide distribution for these parallels of Type B-6 bowls suggests that this was a very common bowl form in the Umayyad period, one that was not restricted to the 'Amman area. At the same time, the painted motifs on the bowls from Tall Jawa are less refined than those found in the corpus from Rujm al-Kursi ('Amr 1986). An early version of this thinned, triangular rim bowl appears in the typical Byzantine red ware (D23/5.2).

²⁵ Northedge classed a group of comparable bowls with vertical sides and a diameter of 9–10 cm as cups (1992: fig. 131:6–9). However, the presence of comparable “cups” in a larger size, as well as a group of even smaller bowls in the Tall Jawa corpus, necessitated a change in our typology.

²⁶ A slightly earlier form of this vessel type is more incurving and appears to represent a Byzantine period form (Avissar 1996: 117; fig. XIII.65:1–3). One of these bowls has an incised circle in the centre of the base (Avissar 1996: fig. XIII.65:3), a feature which also appears on some of the Tall Jawa bowls.

²⁷ Schneider (1950:116) identifies this motif as “double festoons, drooping”.

²⁸ Although she describes the brush strokes as “delicate”, Peleg (1989:51) illustrates several bowls with thick (1.0–1.5 cm) strokes (fig. 45:4, 8, 11).

B-6/a. Vertical-Sided Bowls with Internally Thickened Rim

In certain examples, the bowls in this class are thick-walled for their size. The rim is internally thickened (slightly triangular) and the lip is thinned. Variants consist of bowls with the same basic form but with a different rim treatment.

*B-6/a-1. Vertical-Sided Bowls with Internally Thickened Rim and Pendant Garland Motif**Catalogue*

V630 (Fig. 8.3:2; D13/84/1=23:3/16.18). Thin-walled bowl; D14.0, rim thickness, 0.6, H 9.5 cm; pink (5YR 7/3) fabric, pinkish gray (5YR 7/2) core, very pale brown (10YR 8/3) slip on exterior, with weak red (10R 4/4) paint in overlapping garlands; broken (Daviau and Beckmann 2001: fig. 2:7).²⁹

V654 (Fig. 8.3:3; D23:23/45.5). Thick-walled bowl; D 12.2, rim thickness 0.7, H 7.5+ cm; light brown (7.5YR 6/3) fabric, with very pale brown (10YR 8/2) slip, reddish brown (2.5YR 4/3) paint in overlapping garlands.

Parallels

Jarash: Several forms of the vertical-sided bowl with pendant garland design are present, a deep form and a shallow form. The closest parallel to the Tall Jawa bowl form is the deep bowl with the internally thickened rim (Gawlikowski 1986: pl. XII: upper left). Another example, assigned to the Umayyad repertoire, has a painted wavy line below the overlapping loops (Uscatescu 1996: fig. 108:757).

Amman: Several sub-types of this formal shape with pendant garland decoration were present in the earthquake destruction on the citadel, both in Building B (Northedge 1992: Fig. 131:8, 9), and in Building F (Almagro *et al.* 2000: fig. 15:7). A rim sherd (82) with a thinned lip and pendant garland design was recovered from debris layers in the Emir's Residence, while two better preserved examples, one (78) with multiple garlands and a wavy line across the base and a second missing its base (115) are from the Umayyad Palace (Olávarri-Goicoechea 1985: figs. 52:17, 15:7, 9, respectively). Additional examples, assigned

²⁹ Originally published as D23.16.16 (Daviau and Beckmann 2001:267), the base was recovered subsequent to initial publication.

to the post-749 earthquake level, were recovered in the Great Temple excavations (Koutsoukou and Najjar 1997: 118:329).

al-Muwāqqar: In the assemblage of Umayyad–Abbasid bowls, the same rim form appears (Najjar 1989: fig. 5:1) with the wavy line motif, whereas the pendant garland motif appears on a bowl with a fattened, squared rim (Najjar 1989: fig. 5:6).

Ḥisbân: This motif is also present at Ḥisbân, although the sherd is not identified in the photo (Sauer 1986: fig. 5).³⁰

Siyāgha (Mount Nebo): The Franciscan excavations during the 1930s yielded a significant ceramic corpus, which appears to span the period of 395–747 AD, coming to an end with the earthquake. On this basis, Schneider (1950:3) identifies all early Arab pottery as Umayyad, including bowl 509³¹ (Schneider 1950: fig. 13:5=pl. 156:16; see also pls. 148:14; 156:23), which appear to be close parallels to V630.

Qaṣṭal: The pendant garland design is preserved on a rim sherd with a simple form and rounded lip (Carlier 1984:47: N° 1), while two other sherds with internally thickened rims may have either a pendant garland or floral painted design (Carlier 1984:47: N° 2, 3).

Nil: This squat bowl form with a double row of garlands is represented in the corpus from the Ecclesiastical Complex of St. Sergius (Piccirillo 2001: Photo 31, bottom centre).

Umm al-Rasas: One sherd of a vertical-sided bowl with garlands hanging from the rim is reported from the complex of the Church of St. Stephen (Alliata 1991: fig. 22:18).

B-6/a-2. Vertical-Sided Bowls with Crossed Lines Motif

The crossed line motif appears in two styles, as random groups of crossed diagonal lines or in a true lattice pattern.

Catalogue

V631 (Fig. 8.3:4; D23/8.3). Internally thickened rim, D 13.0, T 0.8, H 10.0 cm; light red (2.5YR 6/6) fabric, no core, light reddish brown (2.5YR 7/4) exterior, with red (10R 5/6) paint in crossed lines that overlap the rim.

³⁰ This is the right hand sherd in the second row from the top.

³¹ Although listed with the cups, this bowl is twice the size of the other cups, especially of its closest parallel (465) in the group (see Schneider 1950: fig. 13).

Parallels

Jarash: Only one rim sherd with this design (C.1737; Rasyon and Seigne 1989: fig. 5.5) is reported from the uppermost debris layer in a cistern in the lower court of the temple of Zeus.

al-Muwaqqar: The crossed line motif is represented on a simple rim bowl (Najjar 1989: fig. 5:4).

Hisbân: One unidentified sherd is painted with the crossed line motif (Sauer 1986: fig. 5).³²

Siyâgha (Mount Nebo): Only a small fragment, possibly from a cup, illustrates this design (Schneider 1950: pl. 156:18).

Umm al-Rasas: One bowl, whose painted decoration is only partly preserved, may be a parallel for this motif (Alliata 1991: fig. 19:18), although a floral design is also possible (compare Alliata 1991: fig. 18:21, where both motifs are present).

*B-6/a-3. Vertical-Sided Bowls with No Decoration**Catalogue*

V632 (Fig. 8.3:5; D23/15.15). D 13.0, T 0.6, H 9.2+ cm; pink (5YR 7/4) fabric; no decoration (Daviau and Beckmann 2001:267).³³

Parallels

Caesarea: The distinctive surface treatment of the vertical-sided cups in this corpus is referred to as “marbled ware” (Niamir 1999:43: fig. 1:4), with one complete vessel, which is similar to but not identical with V632.

Khirbat Sheikh Isa: Although the best examples are found on the plateau, one rim sherd appears to represent this vessel type (Whitcomb 1992: pl. 31n).

Jarash: These simple bowls are included with the bowls assigned to the late Umayyad and Abbasid phases (Parapetti *et al.* 1986: fig. 9:15).

al-Muwaqqar: Several undecorated bowls are included in the Umayyad assemblage from al-Muwaqqar, one with a rounded lip and the second with a thinned lip (Najjar 1989: fig. 5.5, 10).³⁴

³² This is the second sherd from the left in the second row from the top.

³³ Additional rim sherds (D33/27.1+33/50.14, 18) of a light gray (10YR 7/2) fabric suggest more than one vessel of this type.

³⁴ Najjar (1989:314) mentions “traces of paint” on vessel MR89.IV.H14.1,111a (fig. 5:10), but these traces are not illustrated. A deep bowl with a simple rim, assigned to the Abbasid period, is also undecorated (Najjar 1989: fig. 5:8).

Hisbân: Three bowl forms with diameters in the range of 11.0–14.0 cm can serve as examples of the vertical-sided bowl, two of which are undecorated (Sauer 1973:41; fig. 3:123–125=1986: fig. 4:123–125). *Umm al-Rasas*: Two bowls, apparently without painted decoration (Alliata 1991: fig. 22:16, 17) are close in size and shape to the bowls from Tall Jawa.³⁵

B-6/b: *Vertical-Sided Bowl with Triangular Rim*

B-6/b-1: *Vertical-Sided Triangular Rim Bowl with Wavy Lines*

Catalogue

V651 (Fig. 8.3:6; D23/18.30). Triangular rim, D 13.0, rim thickness 0.9, H 8.5 cm; pale yellow (2.5Y 7/3) fabric and surface, with pink (7.5YR 7/3) core; no slip, light brown (7.5YR 6/4) paint; wavy lines on exterior (Daviau and Beckmann 2001:267).

Parallels

Capernaum: Three bowls decorated with wavy lines in reddish brown or weak red paint (Peleg 1989: fig. 45:3–5) all have a thinned lip or tapering rim, comparable to the bowls with the pendant garland design at Tall Jawa.

Pella: One bowl of this type is present; however, its painted design is unique (McNicoll *et al.* 1982: pl. 147:2) and has no parallel at Tall Jawa.

Qaşr al-Hallabat: Two horizontal wavy lines in reddish brown paint on a light-coloured slip decorate a vertical-sided bowl from House 3 (Ghrayib 2003: fig. 10e).

Jarash: A good example of the flat bottomed bowl with a design of wavy lines is included in the collection of Umayyad and early Abbasid bowls (Gawlikowski 1986: pl. XII: upper right, second from the top), as well as in the 8th century assemblage from the North Theatre (Clark *et al.* 1986: fig. 21:1).

Qastal: A rim sherd with a straight painted band and a painted wavy line represents this motif (Carlier 1984:47: N° 4).

Umm al-Rasas: Two bowls with the thickened rim and thinned lip each have four wavy horizontal lines (Alliata 1991: figs. 3:3, 18:11),

³⁵ A complete undecorated bowl is on display in the Madaba Museum (R 798, Case 4).

although the second bowl/cup is somewhat smaller with a diameter of 10.0 cm.

B-6/c. Vertical-Sided Bowl with Grooved Rim

B-6/c-1. Vertical-Sided Grooved-Rim Bowl with Wavy Lines

The bowl in this sub-type has a larger diameter (16.0) than other vertical-sided bowls (*ca.* 12.0–13.0 cm), and is relatively squat (*ca.* 7.0 cm deep). This makes it comparable in proportions to one bowl with a pendant garland design from 'Amman (Olávarri-Goicoechea 1985: fig. 15:16) and to a second bowl from Umm al-Rasas (Bujard and Joguín 2001: fig. 1:3).

Catalogue

V652 (Fig. 8.3:7; D23/15.5). Grooved rim, D 16.0, T 0.9, H 7.0+ cm; pale yellow (2.5Y 8/3) fabric, with light brown (7.5 YR 6/4) to brown (10YR 5/3) paint on exterior; three horizontal wavy lines with long gentle tails (Daviau and Beckmann 2001:267).

Parallels

Khirbat Karak: A cup with four wavy lines (Delougaz and Haines 1960: pl. 37:8) appears to be a slightly deeper vessel than V652.

Jarash: An 8th century bowl (3474/415) with vertical sides in red ware (C) falls into this general class; however, its internally thickened rim is closer in form to Type B-6/a. The decoration consists of horizontal, not quite wavy, painted lines (Clark *et al.* 1986: pl. XVIII:2).

Madaba: One bowl with three broad wavy bands comes from the domestic structures associated with the Church of the Prophet Elijah located in the Madaba Archaeological Park (Alliata 1994b: fig. 5:5).

Nitl: A cup with two wavy lines serves as a close parallel (Piccirillo 2001: photo 31, centre), although the exact rim form cannot be identified in the illustration.

Umm al-Rasas: Among the bowls with a slightly thickened rim and thinned lip, there are several examples with three horizontal wavy lines (Alliata 1991: fig. 17:3=1994: fig. 109; Bujard and Joguín 2001: fig. 1:2, 3), as well as one with four wavy bands (Alliata 1991 fig. 18:11).

B-7. Rib-Sided Bowls with Wavy Lines

Criteria and Decoration: Only one bowl form with ribbed sides and an offset rim is represented in the corpus. This single example from Tall Jawa has a shallow rounded body, and is decorated on the unslipped exterior surface with gentle wavy lines in red paint.

B-7/a. Ribbed-Sided Bowls with Everted Rim

The shape of the thin everted rim suggests that this bowl could have been designed to have a lid, although no appropriate lids or lid fragments were found.

Catalogue

V633 (Fig. 8.3:8; D33:23/25.1). Rim, D 22.0, rim thickness 0.35, H *ca.* 7.0+ cm; light red (2.5 YR 7/6) fabric, no core; light red (2.5YR 6/8) paint on rim and exterior body, gently wavy lines at intervals (Daviau and Beckmann 2001: fig. 2:9).

Parallels

al-Muwaqqar: No true parallels can be cited, although one bowl sherd with an everted rim and ribbed body from al-Muwaqqar is assigned to the Abbasid period (Najjar 1989: fig. 9:35).

B-8. Hemispherical Bowls

In the same size range (D *ca.* 12.0–14.0 cm) as the vertical-sided cylindrical bowls are a group of sherds that represent the common late Byzantine style hemispherical bowl with a relatively broad incised wavy line on the exterior, just below the rim. These bowls usually have a simple rim thinned at the lip and a low ring base, comparable to Cup V629, although they are somewhat larger in size. The examples from Tall Jawa are formed of a crisp hard ware.³⁶

Catalogue

D12/30.18 (Fig. 8.3:9). Rim sherd; D 14.0 cm; reddish yellow (5YR 7/6) fabric and exterior; band burnishing; incised.

³⁶ A second sherd has a thinner incised wavy line around the rim (D14/9.21).

Parallels

Caesarea: The wide distribution of this type is seen in its presence in the upper layers of the harbour sediments of Caesarea (Tomber 1999: fig. 9:141).

Wadi et-Tlah: A single wavy line, incised on the exterior, is such a common feature that it also appears at monastery sites in Sinai although its origin may have been the Jerusalem area (Calderon 2000a:205; figs.11:149=27:13).

Jerusalem: Tushingam assigns one incised hemispherical bowl to Byzantine phase IA and another to IB (1985: figs. 26:10; 28:16).³⁷ From West Jerusalem, two Byzantine period vessels, a bowl and a small cup, both have a slightly thickened simple rim with a single incised wavy line below the rim (Maeir and Bahat 2004: fig. 11:5, 6). The poorly fired quality of the cup's fabric has much in common with small undecorated cups in the Tall Jawa corpus (see above). An assemblage of pottery from the domestic quarter south of the Temple Mount also includes the popular hemispherical bowl with a single broad incised wavy line on the exterior immediately below the lip (Ben-Dov 1982:257, upper right).

Ramat Raḥel: One bowl with a diameter of *ca.* 11.0 cm is a good example of this type (Aharoni 1964: fig. 22:14).

Nuṣeib Uweishira: Pottery from this monastery west of Jericho includes hemispherical bowls each with an incised wavy line (Netzer and Birger 1990: 199: figs. 19, 20).

Khirbet en-Nitla: Assigned to the "Arabic" Type 40 bowls is Bowl N49, with a simple rim and a single incised wavy line below the lip (Kelso and Baramki 1955: pl. 29:N49).

Pella: This form appears in the Byzantine period (III) domestic area (IV) in "band burnished ware" (Smith *et al.* 1992:175; pl. 111:7).

Tall al-Kharrār: Bowls similar in size to those at Tall Jawa are dated to Late Byzantine III (Abu Shmeis and Waheeb 2002: fig. 14:8–10).

Tall Zar'a: Survey at this site south of Gadara yielded 5541 sherds assigned to the Byzantine–Umayyad horizon. Among these is at least one hemispherical bowl with a simple, thinned rim and a relatively broad incised wavy line (Vieweger 2002: fig. 19: top right).

³⁷ A bent-sided bowl with incised wavy line is grouped with Islamic pottery from several periods (Tushingam 1985:fig. 33:17).

Jarash: Bowls with a single incised wavy line appear in several sizes in the corpus from the Macellum (Uscatescu 1996: fig. 68:338; 100:687; 2001: fig. 10:1). As well, bowls similar in shape and incised design were reported from an Islamic house (Area XI) outside the North Theatre at Jarash; this vessel is identified by Bowsher in his plates as a “Byzantine bowl” (Clarke *et al.* 1986: pl. XVI:2). Another example, slightly more elaborate with interior paint, comes from the Temple of Artemis (Parapetti *et al.* 1986: pl. 10:2).

Amman: A relatively large hemispherical bowl from the Great Temple excavations was located in a Late Abbasid context, although the parallels cited are dated by Parker to Byzantine I–II and by Watson to the mid-6th century AD (Koutsoukou and Najjar 1997:73; fig. 172).

Siyâgha (Mount Nebo): Two examples of cups with an incised wavy line are illustrated; one (461) with the “spherical” shape of Tall Jawa bowl V629, and the other (502) cup with a larger diameter (11.2 cm) and more shallow body (Schneider 1950: fig. 13:4, 7).

Madaba: Byzantine period sherds from Houses A and B are a close parallel (Acconci and Gabrieli 1994: figs. 23:59; 37:137, 144; 41:13). A similar bowl with a simple rim and a single incised wavy line comes from the Tall Madaba excavations (Harrison *et al.* 2003: fig. 11:13).

Ayn az-Zâra (Callirrhoe): A small bowl or cup with a simple rim and an incised wavy line forms part of a late Byzantine assemblage (Clamer 1997:112; pl. 17:18).

Umm al-Rasas: Bowls/cups with a slightly thickened simple rim and wavy incised line (Alliata 1991: figs. 10:28; 27:15) are assigned to the Byzantine horizon at Umm al-Rasas. A second bowl, with a delicately incised gentle wave, was from the presbytery of the Church of St. Stephen (Alliata 1991: fig. 26:21).

B-9. Fine Ware Plates with Horizontal Everted Rim

Only two red ware sherds fall into the category of large shallow plates with a horizontal everted rim, one is incised on the upper surface of the rim itself, a feature seen on some Byzantine period basins, and the other rim is plain. These bowls are usually identified as Phocaean ware bowls imported during the 6th and 7th centuries (Watson 1992:243).

Catalogue

D32/64.1 (Fig. 8.3:10). D *ca.* 25.0 cm; light red (2.5YR 7/6) fabric and interior, light red (2.5YR 6/6) exterior; incised, sherd.

D31/61.9 (Fig. 8.3:11). D 30.0, rim T 0.5 cm; light red (2.5YR 7/8) fabric, red (2.5YR 5/8) interior; sherd.

Parallels

Horizontally everted rim bowls are present in fine wares and in slightly thicker walled versions in central Jordan.

Pella: The everted rim bowl is Form 10C in the Pella assemblage of Phocaean fine wares (Watson 1992:243; fig. 13:117). Jarash bowls also have an everted, sometimes pendant, rim, but these are local imitations (Watson 1992:242; fig. 12:101).

Siyāgha (Mount Nebo): Several examples of thick-rimmed bowls with horizontal rim were recovered in various loci in the church, in one case between two mosaics (Bagatti 1985: figs. 3:11; 11:9; 12:17; 14:9).

B-10. Thick-Walled Vertical-Sided Bowls with Paint

Criteria: Two bowls, each with a thick body and slightly thickened rim, do not qualify as kraters due to their overall size, and are included here as medium-size bowls.

B-10/a. Thick-Walled Vertical-Sided Bowls with Paint and Thickened Rim

Catalogue

D33/15.8 (Fig. 8.3:12). D 14.5 cm; pink (7.5YR 8/3) fabric, very pale brown (10YR 8/3) slip, red (10R 5/6) paint; sherds.

B-10/b. Thick-Walled Carinated Bowls with Paint and Thickened Rim

Catalogue

D23/57.1 (Fig. 8.3:13). D 23.2 cm; very pale brown (10YR 7/3) fabric, light red (2.5YR 7/6) exterior, reddish brown (2.5YR 4/3) paint; sherds.

C. KRATERS

Kraters are large bowls, usually relatively deep, with two handles and a tall ring/pedestal base. There are two basic body shapes, one is straight sided (C-1), whereas the second form is bent sided (C-2).

C-1. Straight-Sided Kraters

Criteria: No complete vessels in this class could be restored; however, there were rim sherds representing several distinct vessels that can easily be assigned to this class. Each rim was part of a relatively thick-walled vessel of finely levigated clay. The rim is triangular or rectangular in section, flat on the top, and overhangs the body. Below the rim, there is a noticeable ridge on the upper body; a loop handle begins at this ridge and is attached lower on the body.

*C-1/a. Rectangular-Rim Kraters with Decoration**Catalogue*

V682 (Fig. 8.4:1; D22:0.5/46.1). Rectangular rim, D 23.0, T 0.7, H 10.6+ cm; pink (5YR 7/4) fabric, with very pale brown (10YR 8/2) slip, light reddish brown (5YR 6/4) paint; sherd.

Description: The best example of this type is a painted vessel with only the beginning of a series of four wavy lines preserved on the exterior below the ridge. Perpendicular stripes decorate the rim and appear to continue as drip lines on the interior.

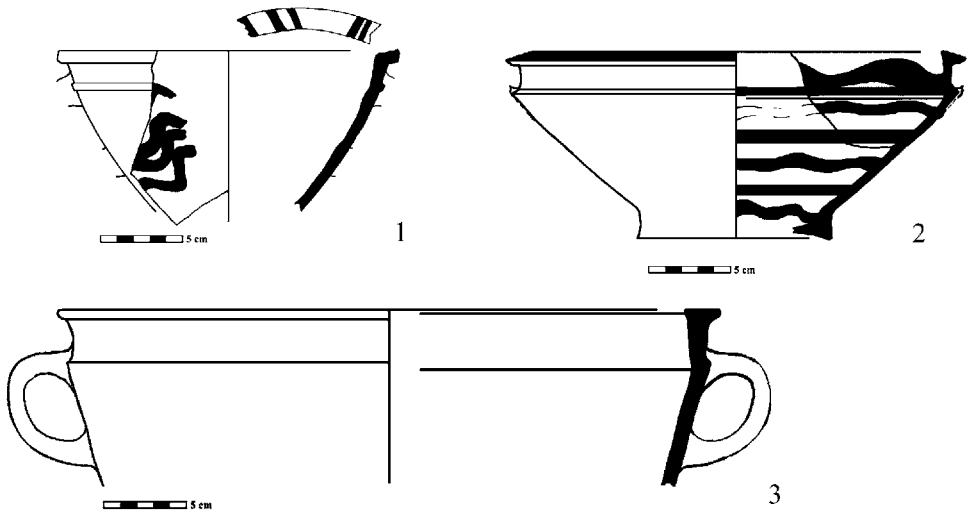


Figure 8.4. Kraters, 1) V682; 2) V628; 3) V681.

Parallels

Umm al-Rasas: Although not an exact parallel, one undecorated vessel (Alliata 1991: fig. 26:17) has many of the same features as the decorated krater from Tall Jawa.

*C-1/b. Rectangular-Rim Kraters without Decoration**Catalogue*

D31/40.2 Sherd; D 29.0 cm; very pale brown (10YR 8/2) throughout.

*C-2. Bent-Sided Kraters with Everted Triangular Rim**C-2/a. Bent-Sided Kraters with Decoration*

Criteria and Technology: The kraters in this type are close in size to the large straight-sided bowls of Type B-1. The principal differences are their depth, the presence of handles, and the sharp carination.

Catalogue

V628 (Fig. 8.4:2; D2:19/27.5). Triangular rim, D 25.0, T 1.0, H 11.5 cm; reddish yellow (7.5YR 7/4) fabric, with light gray (5Y 7/1) core, pale yellow (2.5Y 8/3) slip on exterior, reddish brown (2.5YR 5/4) painted bands and wavy lines on the interior and on the rim (Daviau and Beckmann 2001: fig. 2:5).

Description: Vessel 628 is the best preserved example of this type. This bowl has a sharply everted or overhanging rim³⁸ and a bent side, above which the body is vertical. A sharp ridge on the exterior marks the change of direction, and a scar on the ridge indicates the position of the handle. A low concave base completes the vessel. The painted decoration consists of very gentle wavy lines alternating with straight bands on the interior, both above and below the change of direction.³⁹

³⁸ This same rim form appears on deep bowls or kraters (see below).

³⁹ Although the form may be different, it is interesting to note that a variant of this design is seen on the inner surface of a bowl from the house of Leontis at Beth Shean (Zori 1966: pl. 9D).

Parallels

Jarash: Although undecorated, a bowl with a sharp ridge at the change of direction (Gawlikowski and Musa 1986: fig. 7:2) is the prototype of the painted bowl.

Amman: One bowl with a variant painted design fits into this type (Koutsoukou and Najjar 1997: fig. 228).

Siyâgha (Mount Nebo): Although not identical in form, several large bowls with a light slip on the exterior appear to have a painted design on the interior (Schneider 1950:61–62; figs. 5:1, 3; 6:1, 4) similar to V628, whereas a close parallel to the shape of the body is seen in the small painted and undecorated ‘basins’ (fig. 8:5–7).

Madaba: Two straight-sided bowls from Tall Madaba are decorated with a comparable pattern, although there are fewer (2) wavy bands (Harrison *et al.* 2003: fig. 12:6, 7). A base sherd with the same design of wavy and straight bands was recovered at House A (Acconci and Gabrieli 1994: fig. 14:7).

Umm al-Rasas: Fragmentary remains of a large bowl with painted decoration on the interior has a sharp change of direction and a thickened rim (Bujard and Joguin 2001: fig. 1:6).

C-2/b. Triangular-Rim Kraters without Decoration

These thick-walled, deep vessels appear to be slipped on the exterior and over the rim.

Catalogue

V681 (Fig. 8.4:3; D13:55/83.14). Triangular rim, D *ca.* 33.0 cm; pink (7.5YR 7/3) fabric, with pink (7.5YR 8/3) slip; broken.

Parallels

Jerusalem: A large “bowl” (Tushingham 1985: fig. 32:53), illustrated without handles, serves as a close parallel to the form of the Tall Jawa vessel.

Hisbân: At the time of writing, Sauer (1973:41; fig. 3:118) knew of no parallels for a “buff-white” krater rim and body sherd with the distinctive bent side and triangular rim.

D. COOKING CASSEROLES

Two styles of cooking vessels appear at Tall Jawa, the casserole with horizontal handles and the deep, narrow-necked cooking pots with vertical handles. The casseroles are a continuation of a form known already in the late Roman–early Byzantine periods.⁴⁰ Of special interest is the fact that good examples of this vessel appear at Tall Jawa in several different body profiles and in a variety of fabrics suggesting pots of different ages. The longevity of certain pots may be due in part to the thickness of the base and the lower body wall, although in general cooking vessels are more short-lived than other vessel forms.⁴¹

Criteria: The casserole is a nearly hemispherical vessel, although some examples are somewhat piriform while others are cylindrical in shape, with a gently rounded or flat base,⁴² exterior body ribbing, and two horizontal handles. Variation in types can be determined on the basis of body shape and on the position and stance of the handles. Typically, the rim is angular or bevelled because of the manner in which the cover was cut from the pot (see below).

Technology: Like all Umayyad pottery, the cooking wares were also made of carefully cleaned clay, although there is evidence for the inclusion of sand and other fine grits to help strengthen the pot against the stress of heating and cooling. The cooking casserole and its cover were formed as a single vessel and separated only in the final stages of production. Both the knob on top of the cover and the base of the pot were closed from the outside, suggesting that the vessel was formed in two stages. Homès-Fredericq and Franken (1986:212) illustrate a

⁴⁰ Two horizontal handles, formed by folding the clay up from the bottom to create a thick ring around the inner loop, have parallels in the Late Roman corpus from the domestic quarter at Pella (Smith *et al.* 1992:171; pl. 108:7); this “bowl” sherd has its ‘type’ in the Byzantine assemblage. The fine fabric of the rim and handle does not correspond to the typical cooking pot fabric of vessels in use in Building 600 at Tall Jawa. Closer in terms of fabric description are the Byzantine bevelled-rim casseroles from Caesarea (Niamir 1999:147; fig. 64:6–9).

⁴¹ Typically, cooking pots do not have a long period of use. Repeated periods of heating and cooling put stress on the base, which usually deteriorates more quickly than the upper part of the pot. At Tall Jawa, a number of bases are preserved, making it possible to reconstruct the vessel form from rim to base.

⁴² This differs from the understanding of Bujard and Joguín (2001:140), who describe casseroles with omphalos bases. Herr describes the casseroles from Yaduda as probably having a flat base, although none are preserved. These pots are smooth walled, without ribbing (Herr 2003:93; fig. 2:8–14).

sequence in which the base was formed first, being closed from the outside, and then the vessel was inverted to throw the upper part. What is clear from the Tall Jawa pots is that the rill pattern on the interior surface continues from the casserole into the cover, and even into its knob. In the case of Vessels V619 and V1556, we have the cover which is of the same fabric as the casserole, and seals against the lip. These vessels provide clear evidence that the cover was formed as an integral part of the vessel, a method that guaranteed a tight fit. As an anomaly, Casserole V607 has a lip which is not completely horizontal. At one point, there is a sharp drop in the height of the lip where the potter failed to separate the cover from the pot in a single stroke.

The exterior surface was ribbed, forming gently rounded ridges. This ribbing was restricted to the wall of the casserole below the lip and was formed before the handles were attached. Fine grooves, possibly formed using a tool or comb appear on some of the covers. In certain instances, the point at which the cover was cut from the pot is marked by a triangular protrusion of clay, probably formed as a marker of the position of the separation of the cover from the casserole. The result is that the lips of both pieces protrude slightly from the wall of the vessel. The cut to remove the cover from the pot was done on an angle that resulted in a bevelled rim.

Two loop handles were attached horizontally immediately below the rim. The majority are triangular or sub-round in section (V619), although a small number are folded (V1515), continuing a tradition that was common during the Byzantine period.⁴³ One folded handle (D23/15.25) is unusual in that it was attached partially above the lip of the rim and then pulled upward on an angle. These features can be explained in two ways; either the casserole was made without its cover, as shown by Franken and Kalsbeek (1975: fig.19) in their study of pottery from Tall Abu Gourdan, or the handles were put in place carelessly after the cover had been cut from the body.

Function: The casseroles were clearly designed to cook food that contained a certain amount of liquid that would create steam while cooking. The cover was tightly fitted so that the food would not spill when it boiled, but the steam was able to escape through a hole in the cover. Soot on the exterior of the pots, especially on the base, indicates

⁴³ A group of unregistered sherds with a similar folded handle and reddish brown slip will be published with the random pottery (Daviau ed. in preparation).

that the casserole was set onto the hot coals of the cooking fire, either within an oven or in a hearth. At Tall Jawa, cooking pots and a deep bed of ash were located in Room 605, although no clay oven was present in the room.

Two basic styles of casserole can be distinguished, those that are cylindrical and those that taper toward the base with a piriform, conical, or rounded body. At this stage, the chronological importance of this difference is unclear. However, the piriform pots are larger and thinner walled on average than the cylindrical casseroles.

D-1. Cylindrical Casseroles

The casseroles in this type appear in a variety of fabrics, but are characteristically thick walled and relatively small. For the most part, these casseroles have a cylindrical body shape and a horizontally cut flat or only slightly bevelled rim.

Catalogue

V604 (Fig. 8.5:1; D2/30.1). Rim D 15.0, H 11.4, int Dp 10.7 cm; pinkish gray (7.5YR 7/2) fabric, light gray (10YR 7/1) exterior; flat base; broken.

Parallels

In citing parallels, every attempt has been made to distinguish individual features, such as shape, wall thickness and the stance of the handles. For example, certain relatively cylindrical casseroles from Ḥumayma (‘Amr and Schick 2001: fig. 9:23, 24) do not make good parallels, because they are thin-walled and have very different proportions (D *ca.* 19.0, H 10.0 cm).

Qaṣr al-Ḥallabat: Both casseroles recovered in the houses around the qaṣr have rounded sides, were ribbed on the shoulder (Ghrayib 2003: fig. 10k, l), and appear globular or piriform in shape.

‘Amman: Two gray ware pots from the Citadel show the extent of this tradition in the area of Tall Jawa (Bennett 1978: fig. 6:717, 718=Northedge 1992: fig. 133:3, 4).

Madaba: With a rim diameter of 16.0 cm, this red-ware cooking casserole (Harrison 1994: fig. 3:2) is an example of a cylindrical thick-walled vessel.

Umm al-Walid: A gray ware pot, which is slightly deeper than the Tall Jawa casseroles, is an example of the continuing tradition of this vessel type (Bujard and Joguín 2001: fig. 3:20).

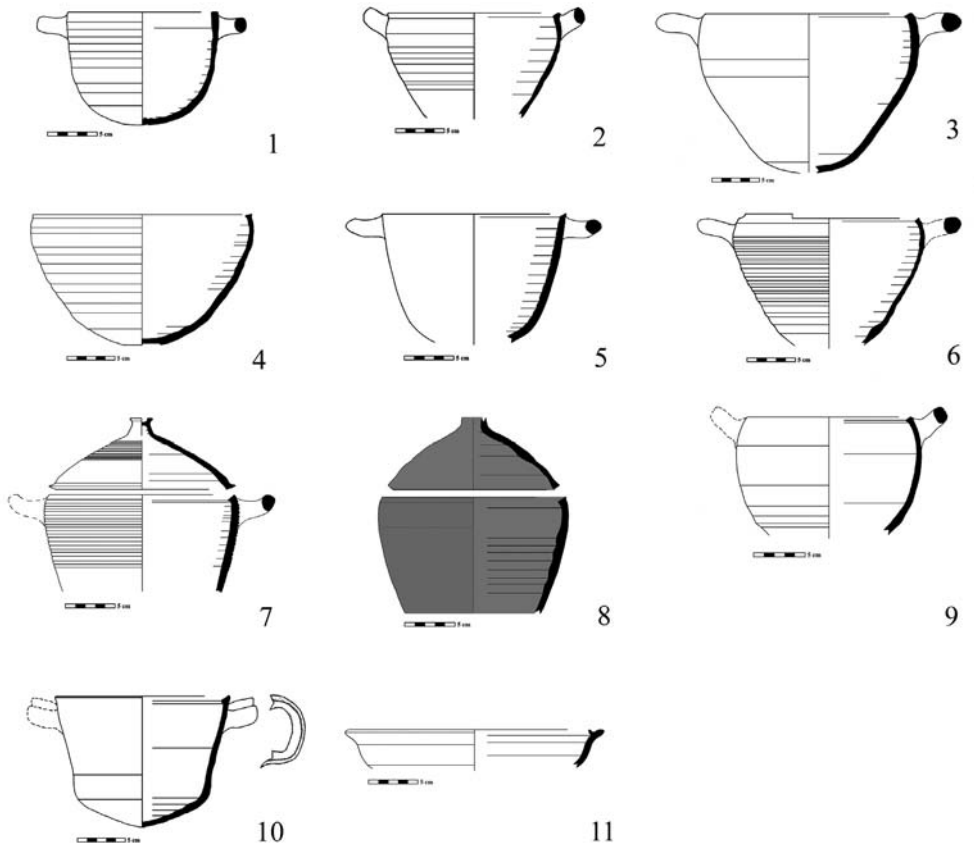


Figure 8.5. Flat or bevelled-rim casseroles, 1) V604; 2) V620; 3) V606; 4) V608; 5) V605; 6) V607; 7) V619 + V615 (cover); 8) V1556 + 616 (cover); 9) V1516; 10) V1515; Grooved-rim casserole; 11) D14/8.15.

Aqaba: The cylindrical casserole is also represented as far south as Aqaba (Melkawi *et al.* 1994: fig. 9c=Whitcomb 2001: fig. 1d), where it appears in a red-orange fabric. A second casserole has a similar body shape but the rim is offset (Melkawi *et al.* 1994: fig. 9:d).

D-2. Piriform Casseroles with Bevelled Rim

The casseroles described as piriform are deeper than the cylindrical casseroles, and the wall of the bowl rises beyond the mid-point before the cover was cut off. The lower body tapers toward a relatively flat

base and the completed vessel was roughly piriform in shape. Overall, these casseroles are thin-walled vessels.

Catalogue

V620 (Fig. 8.5:2; D32/13.2). D 18.0, H 10.6+ cm; brown (7.5YR 5/3) fabric, light reddish brown (5YR 6/4) int surface; gray (N5/) ext, soot stained; broken.

V606 (Fig. 8.5:3; D23/20.2) D 20.6, H 17.0 cm; gray (N5/) fabric and ext. broken.

V608 (Fig. 8.5:4; D23/16.10). D 23.0, H 13.1 cm; dark reddish gray (5YR 4/2) fabric, dark gray (10YR 4/1) ext; broken.

Parallels

Buṣrā: Among the casseroles at Buṣrā is one with a piriform body and folded handle (Wilson and Sa'd 1984: fig. 456), a technique also seen on certain handles at Tall Jawa (V1558).

Yōqneʿam: There is great variation in style among the 12 casseroles assigned to Umayyad and Abbasid periods. A good example of a piriform pot with ribbed outer wall is cooking bowl 2204/22 (Avisar 1996: fig. XIII.99:1).

Kursi: A number of open cooking casseroles have either horizontal or angled handles (Tzaferis 1983: fig. 6:9–12).

Beth Shean: A deep casserole with a broadly-ribbed body and horizontal handles pulled on the diagonal (Johnson 2006: fig.15.14:281) is a good parallel for V606.

Tall Abu Gourdan: Several sherds from this Jordan Valley site (Franken and Kalsbeek 1975: fig, 19:13, 14) represent the thin-walled piriform shape of the Tall Jawa pots.

Tall al-Kharrār: Among the red ware casseroles from the Baptism site, a piriform pot with horizontal handles and a ribbed body is assigned to the Byzantine III period (Abu Shmeis and Waheeb 2002: fig. 13:3).

Jarash Already during the American expedition of 1930, a casserole with pulled up handles was recognized as a 'late' form (Fisher and McCown 1931: pl. 14: B2/x1). Another thin-walled casserole (B.III.024) with bevelled rim and folded loop handles, accompanied by a cover, (B.III.016) is included among the 8th century pottery from the North Theatre (Clark *et al.* 1986: fig. 21:15, 16). Only the rim and grooved wall of a casserole (C. 1742; Rassin and Seigne 1989: fig. 5.6) was recovered from the cistern at the Temple of Zeus.

Umm al-Rasas: The casseroles from Umm al-Rasas have horizontal handles that have been pulled up on an angle (Alliata 1987: fig. 6:28; 1991: fig. 14:5). For the most part, the loop handles are round in section (Alliata 1991: fig. 27:3).

Khirbat adh-Dharih: Deep cooking casseroles with horizontal handles positioned slightly below the lip are characteristic of the assemblage (Waliszewski 2001: fig. 5:3, 4).

D-3. Conical Casseroles

Relatively conical casseroles appear to be few in number in the Tall Jawa corpus, possibly due in part to the fragmentary preservation of certain vessels. What distinguishes these vessels from piriform casseroles is the position of the rim which is at or slightly below the change of direction for the cover. V619 has a rather distinct surface treatment; instead of gentle ribbing, the exterior is grooved with flat ridges, similar to the ridging on a large gray-ware jar (V602).

Catalogue

V605 (Fig. 8.5:5; D2/24.7). D 18.7, H 13.6; reddish brown (2.5YR 5/4) fabric, dark reddish gray (2.5YR 4/1) ext; broken.

V607 (Fig. 8.5:6; D23/20.5). D 19.0, H 13.7+; light red (2.5YR 7/6) fabric, gray (7.5YR 5/1) exterior; broken.

V619 (Fig. 8.5:7; D21/10.1). D 19.0, H 10.0+ cm; light reddish brown (5YR 6/4) fabric, dark gray (2.5Y 4/1) ext; broken; this vessel goes with Cover V615.

V1556 (Fig. 8.5:8; D23/19.1). Rim D 15.5, H 11.5+, int Dpt 11.0+ cm; gray (N6/) fabric and interior, gray (N5)/ exterior; broken; this vessel goes with Cover V616.

Parallels

Capernaum: A casserole with handles rising above the rim has a similar pattern of grooves and flattened ridges as V619, although this vessel is round-bodied (Loffreda 1983: fig. 8:2) with a diameter of 30.0 cm and a depth of *ca.* 20.0 cm.⁴⁴

⁴⁴ A second casserole, this one recovered in House VIII, has very different proportions; the diameter is *ca.* 17.0 cm, while the depth is *ca.* 18.0 cm.

Khirbat Karak: Among the Late Roman casseroles, there are three vessels with a slightly conical shape (Delougaz and Haines 1960: pl. 53:24, 25, 28).

Tel Ira: A casserole with broad grooves appears to be thinner-walled than V619 from Tall Jawa; however, the pattern of grooves is similar (Fischer and Tal 1999a: fig. 6.147:9).

Aqaba: Along with the cylindrical casseroles is a deep conical pot (Melkawi *et al.* 1994: fig. 9:b).

Pella: The cooking casseroles are somewhat different in body shape from those at Tall Jawa, with the exception of the conical casseroles, which appear in both ribbed and plain walls (Watson 1992: fig. 1:2, 3).

D-4. Round-Bodied Casseroles

The rounded shape of certain casseroles results in their handles rising above the level of the rim. These vessels tend to be less deep than the piriform vessels.

Catalogue

V1516 (Fig. 8.5:9; D23/18.11). D 16.0, H 11.6+ cm; gray (2.5Y 6/1) fabric and ext; broken.

Parallels

Capernaum: Good examples of the round-bodied casserole with a ribbed body can be seen in the late Byzantine–early Islamic assemblage (Loffreda 1983: fig. 12:5, 6).

Beth Shean: Along with cooking pots and a casserole with a deep body, there is one example of a round-bodied casserole assigned an early Islamic date (Johnson 2006: fig. 15.14:280).

D-5. Straight-Walled Casseroles

There is only one casserole with straight sides and a distinct change of direction above a slightly pointed base (V1515). While most of the casseroles found at Tall Jawa have horizontal loop handles, V1515 has folded handles.

V1515 (Fig. 8.5:10; D31/46.11). D 18.2, H 14.0 cm; pink (7.5YR 7/4) fabric, reddish brown (5YR 5/4) exterior surface; broken.

Parallels

Tel Ira: Vessels with a similar shape appear among the pots from the monastery (Fischer and Tal 1999a: fig. 6.137:14).

D-6. Grooved-Rim Casseroles

This type is rare at Tall Jawa, and is represented by only one sherd recovered from outside Building 600.

Catalogue

D14/8.15 (Fig. 8.5:11). Sherd; D 27.0 cm; reddish yellow (5YR 6/6) fabric, dark gray (10YR 4/1) exterior.

Parallels

Pella: A number of these ‘bowls’ are present in the assemblage; certain ones have angled loop handles or a single long frying-pan style handle (Watson 1992: figs. 4:34; 11:90).

Jarash: This form is assigned to the late Byzantine period and appears in Group XVI in the typology of the pottery from the Macellum (Uscatescu 1996: figs. 17:1; 74:393).

Khirbat Yajuz: The best example of a casserole with a wide, gently-grooved rim is a thick-walled pot with widely spaced shallow ribbing on the body (Khalil and Kareem 2002: fig. 13:1).

D-7. Pan Handles

Horizontal casserole handles with a stem are identified by Schneider as “pan handles” (1950:55; pl. 150:21–25) and are well known from the Byzantine period.⁴⁵ Only the knob of one of these red ware handles (TJ-D23/45.7) is represented in the Tall Jawa corpus.

E. COVERS

Criteria and Technology: More than a dozen different casserole covers are present in the corpus, although only two can be directly related to their casserole (V616+V1556, V615+V619). The covers have a flat horizontal

⁴⁵ See for examples Tel Ira (Fischer and Tal 1999a: fig. 6.134:14).

or bevelled rim that fits the rim of the casserole. In the formation of the cover, the shoulder rises either directly from the rim (V1557) or is separated from the rim by a distinct groove (V613). From the rim, the cover is relatively shallow, rising to a knob on the top. For all of these covers, the construction methods are those described above in the discussion of casseroles; the covers were formed as an integral part of the cooking vessels. When the shoulder was thrown, the knob was closed from the outside and, in most examples, pushed down into the neck. The rim was formed when the cover was cut from the body of the pot. Before firing, a steam hole was punched in the cover.

Only one convex cover is present that was not related to the cooking casseroles. This cover (D21/5.4) is thick walled, with a grooved rim and hooked lip that indicates its manner of resting on a vessel of similar size (V673; see above).

E-1. Cooking Casserole Covers

The covers for casseroles were made of the same variety of fabrics as the casseroles themselves. However, the covers preserved in the archaeological record at Tall Jawa are even more diverse in their fabric types than the casseroles, appearing in gray, light and dark browns, pink, red, maroon, reddish brown, and reddish yellow. Considerable variety is also seen at other sites in the region. The covers from Building 600 all have a flattened/bevelled rim and a tall knob handle that was closed from the outside, forming either a flat top or a shallow depression; these two styles were also represented at Siyâgha (Mount Nebo; Schneider 1950: fig. 14:1, 2). Partially mended covers from Tall Jawa each have a single steam hole 0.30–0.35 cm in diameter. The upper surface is usually smooth although a few covers were finely ribbed or grooved, similar to a cover from Umm al-Rasas (Alliata 1987: fig. 5:17). On the exterior, above the bevelled rim, is a slight depression, probably formed when the potter cut the cover from the casserole (for example, V615; see also, Alliata 1987: fig. 238). The exception to this is V1557 where the shoulder runs straight down to the rim.

Catalogue

- V616 (Fig. 8.5:8; D12:0.5/35.8). Ext D 17.0, H 7.1+ cm; gray (10YR 6/1) fabric, gray (N5/) exterior; matches casserole V1556; broken.
- V615 (Fig. 8.5:7; D21:20/10.7). D 23.0, H *ca.* 6.0 cm; light reddish brown (5YR 6/40) fabric, reddish brown (5YR 5/4) exterior; grooved bands on shoulder around knob; matches casserole V619; broken.

V610 (Fig. 8.6:1; D23/20.1). Cover; gray (5YR 5/1) fabric; light brown (7.5YR 6/3) exterior; twisted neck; broken.

V617 (Fig. 8.6:2; D22/6.4). D 17.1, H 7.9 cm; light red (2.5YR 6/6) fabric, light reddish brown (2.5YR 6/6) exterior; broken.

V1526 (Fig. 8.6:3; D22/6.3). D 17.0 cm; gray (N6/) throughout; soot stained exterior; broken.

V611 (Fig. 8.6:4; D21:19/9.7). D 19.6, H 4.0+ cm; pink (5YR 7/4) fabric, gray (N5/) exterior, light red (2.5YR 7/6) interior.

Parallels

Nuṣeib Uweishîra: Near Jericho, the monastery of Nuṣeib Uweishîra yielded two casserole covers, including one (83/1) with a tall impressed/concave knob (Netzer and Birger 1990: 199; figs. 5, 6).

Tall Abu Gourdān: Examples of covers with a bevelled lip and a knob are present in the Period I corpus (Franken and Kalsbeek 1975: fig. 19:19, 20, 22).

Amman: Matching covers and casseroles indicate clearly that these vessels were formed in one piece and then cut in two. Pot 717a had a cover with a steam hole (Bennett 1978: fig. 6:717a, 717b). Additional examples from the Citadel are assigned to the Umayyad period (Koutsoukou and Najjar 1997: figs. 225, 322, 279, 323, 327, 328).

Jarash: For the most part, the covers recovered at the Macellum are less tall than those from Tall Jawa, however the knob also has a depressed centre (Uscatescu 1996: fig. 76:411, 413), comparable to the Tall Jawa covers.

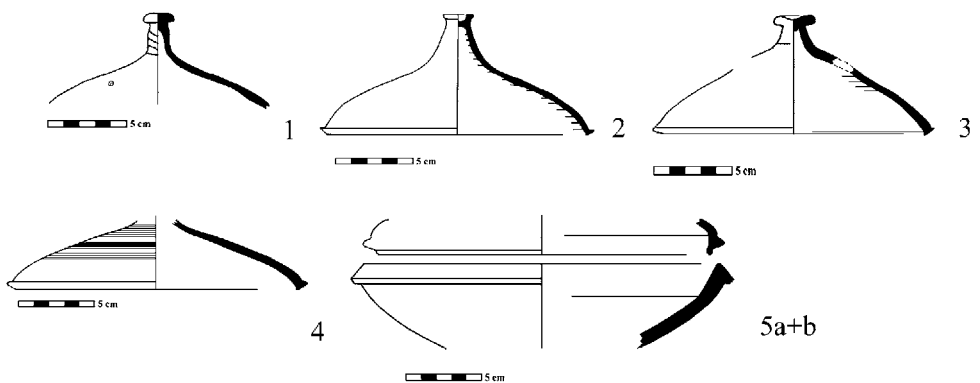


Figure 8.6. Casserole covers, 1) V610; 2) V617; 3) V1526; 4) V611; Utilitarian vessels; 5a) bowl V673, 5b) cover D21/5.4.

Madaba: This form, with a relatively horizontal lip, is also present in the pottery from Madaba (Acconci and Gabrieli 1994: fig. 25:22, 23).

Umm al-Rasas: Gray covers made of a red fabric (Alliata 1991: figs. 18:18, 22:10; 23:7), maroon/very dark red covers (1991: fig. 22:9), red covers (1991: figs. 18:8; 19:14; 22:9; 1987: figs. 5:17; 6:34), covers gray throughout (1991: fig. 22:11), and black/brown ones (Alliata 1987: fig. 6:33; 1991: fig. 22:12) are represented in the corpus. A number of knobs and upper shoulder sherds are also documented in the large assemblage from Umm al-Rasas (Alliata 1987: fig. 5:18, 19), one (R 1363) with a steam hole (1991: fig. 19:3).

Khirbat adh-Dharih: A complete cover, grooved on its upper surface, with its knob and bevelled rim is 7.0 cm in height, similar to V616, although larger in diameter (18.0 cm) (Waliszewski 2001: fig. 5:2).

E-2. Miscellaneous Covers

Only a single cover falls into this category. It is discussed here because this form is unusual at Tall Jawa.⁴⁶ In certain reports this rim form is described as a bowl (Schneider 1950: fig. 5:12–14), whereas in other cases, it is recognized as a cover (see parallels below). The distinguishing characteristics are its shallowness and thick-walled body. The elaborately grooved rim makes it clear that this form was made separate from its matching vessel (V673).

Catalogue

D21/5.4 (Fig. 8.6:5b). Rim D 25.0, pink (7.5YR 8/3) fabric, pinkish gray (7.5YR 7/2) exterior+interior; sherds; goes with utilitarian bowl V673 (Figs. 8.2:4; 8.6:5a).

Parallels

Tetrapyrgium (Qseir as-Seileh): Two examples reflect the tradition of the grooved rim (Konrad 2001: fig. 11:6, 7).

Déhès: The thick-walled, grooved rim cover (Orssaud 1980: fig. 309) also appears among the lid forms.

⁴⁶ A second sherd with similar features (D14/12.3) has a damaged rim and cannot be assigned to this type with certainty.

Madaba: A grooved-rim cover appears along with bevelled-rim covers in House A (Acconci and Gabrieli 1994: fig. 17:34).⁴⁷

Eṭ-Ṭur: A cover with a thin-walled body (Calderon 2000a: figs.1:17=25:1) from the Red Sea coastal site of eṭ-Ṭur has the same grooved rim feature as the cover from Tall Jawa.

Aqaba: A cover with a steam hole and a depressed knob is represented in the ceramic assemblage (Melkawi *et al.* 1994: fig. 9a).

F. COOKING POTS

Criteria: Deep cooking pots are present in three fabric types; thick red ware, thin ware (often brown), and gray ware. Red-ware cooking pots are in the form of a medium-size jar, with a wide neck and two handles that spring from the rim to the shoulder.⁴⁸ The vertical neck is slightly convex, separated from the rim by a groove, and the body is ribbed, beginning at the base of the neck. However, the ribbing ends somewhere below the middle of the body, well above the base. Although the neck is relatively wide, this pot is a closed form in contrast to the casseroles.

Technology: Cooking pots are wheel-made, with a short neck ending in a rounded or thickened rim that may have a somewhat everted lip and a groove either on the top of the rim or on the exterior just below the lip. In the case of the gray ware pots, the vertical loop handles are pinched, forming a pronounced centre ridge.

F-1. Red Ware Cooking Pots

Red ware pots frequently have a red to grayish brown exterior colour, the result of repeated exposure to hot fuel against the surface.

Catalogue

V1524 (Fig. 8.7:1; D31/43.5). D 16.5 cm; light red (2.5YR 6/8) fabric; light red (2.5YR 6/6) slip(?); broken.

⁴⁷ Cooking pots with grooved rims are few in number at Tall Jawa (see V1514, below), but there are good examples of this form in the Byzantine house (Casa A) at Madaba (Acconci and Gabrieli 1994: figs.17:31; 22:31).

⁴⁸ This is typical for Jordanian examples of this form and falls into the “southern” group identified by Sodini and Villeneuve (1992:202–203), in contrast to the Syrian or “northern” group.

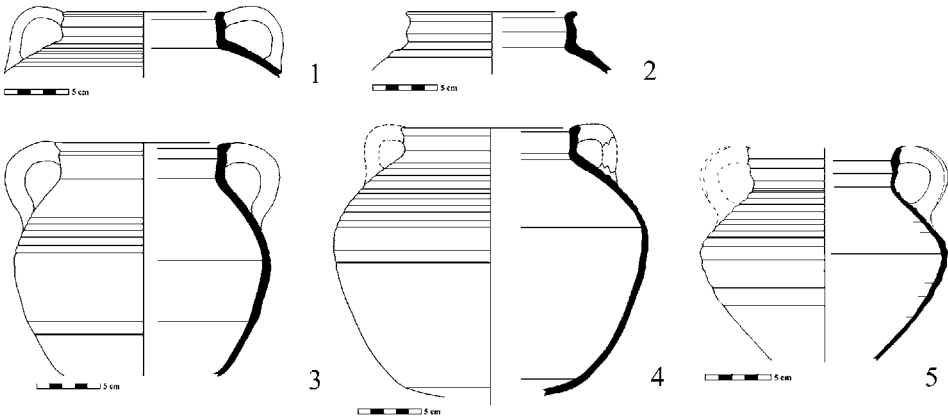


Figure 8.7. Cooking pots; 1) V1524; 2) D32/67.7; 3) V657; Thin-ware cooking pot; 4) V1514; Gray ware cooking pot; 5) V691.

D32/67.7 (Fig. 8.7:2). Sherd; D 13.0 cm; light red (2.5YR 6/6) fabric, gray (N5/) exterior; collared neck.

V657 (Fig. 8.7:3; D31/43.10). Rim D 12.0, body D *ca.* 20.0, H 19.3+ cm; light red (2.5YR 6/6); ext, gray (10YR 6/1); partially restored.

Parallels

Busrā: Among the pots from the Umayyad levels is a red ware pot with an everted lip (Wilson and Sa'd 1984: fig. 450).

Jarash: A fine example of a red ware pot (C. 1750) with its handles and body ribbing (Rasson and Seigne 1989: fig. 5.1) comes from the Temple of Zeus cistern, while another was located in the house of the Deacon Elias (Gawlikowski and Musa 1986: fig. 6:5), and a smaller pot (1678), also of red ware, has an out-turned lip (Rasson and Seigne 1989: fig. 10:2).

Al-Yāduda: The rim form and ribbed shoulder of one pot (Herr 2003:95: fig. 3:9), described as made of “typical cooking pot ware”,⁴⁹ is similar to that of V657 at Tall Jawa.

Wadi al-Kharrār: Among the ceramic finds from survey in the Wadi al-Kharrār region, there is a good example of a cooking pot with

⁴⁹ Herr (2003:89) mentions briefly two fabrics, one is a “cream-colored ware” and the second is a brownish-gray cooking pot ware. He appears to assign all vessels shown on fig. 3 to “cream-colored ware”, including the cooking pots, although this does not agree with his note in the catalogue (2003:95).

everted lip and a bulge in the neck (Waheeb 2001b; fig. 14:1), similar to features of Tall Jawa pots.

Siyâgha (Mount Nebo): Five examples of the deep, red ware cooking pot are included in the published corpus, two pots (209, 212) have a maximum diameter in the range of 21.0–26.0 cm (Schneider 1950:55, 58; fig. 4:4; pl. 150:28, 30). Additional rim sherds were recovered in the later excavations in the church (Bagatti 1985: figs. 1:16; 2:5 (for example)).

Madaba: Six pots, each with a convex neck, are present in the Tall Madaba cave assemblage (Harrison 1994: figs. 4:9, 11; 5:2–5), while one pot (MS.2N11/12.21; 1994:5:1) has a simple vertical rim.⁵⁰

Umm al-Rasas: The everted-lip form is also represented on a red ware vessel with gray exterior (Alliata 1991: fig. 23:19).

Aqaba: Various rim styles appear among the cooking pots, some with parallels at Tall Jawa. The Aqaba pots also have ribbing on the shoulder and body (Melkawi *et al.* fig. 9:l–o).

F-2. *Thin Ware Cooking Pots*

The pots in this thin-ware type are gray slipped on the exterior, but made of a very thin, somewhat porous fabric which fires reddish brown. The rim and neck form is similar to that of the red ware cooking pots, with a groove on the lip, a gently ridged neck, and sharp change of direction at the base of the neck.

Catalogue

V1514 (Fig. 8.7:4; D32/50.1). Grooved rim, D 14.0; H *ca.* 22.0 cm; weak red (10R 5/4) fabric, dark gray (10YR 4/1) slip; broken.

Parallels

Capernaum: A two handled, wide mouth pot with gentle ribbing on the thin-walled body is a close formal parallel to this type of vessel (Loffreda 1983: fig. 12:8).

Pella: Complete examples of globular cooking pots are present with various rim forms, simple and thickened. The closest examples to the red ware pots with a thickened rim are jars 16 and 23 (Watson 1992: figs. 1:16; 3:23).

⁵⁰ Other variants present at Madaba are not represented at Tall Jawa.

Siyāgha (Mount Nebo): This cooking pot form appears in the sherd material in various locations in the church (Bagatti 1985: figs. 4:10; 14:14).

Umm al-Rasas: A cooking pot with a simple rim, gray exterior, and dark red fabric is among the finds from the Courtyard Church, while another example with a rounded, slightly everted rim comes from the Church of the Aedicule (Allita 1991: fig. 10:7).

F-3. Gray Ware Cooking Pots

The difference in the fabric of gray ware cooking pots is obvious; these pots are also thin-walled but are formed from a relatively hard crisp ware. This type is represented by one vessel and a number of isolated sherds. The cooking vessels are distinguished from small gray jars by the soot stain on the base and lower body.

Catalogue

V691 (Fig. 8.7:5; D23/17.1). Biconical; rim D 11.0, body D 18.2, H 15.8 cm; gray (N5/) fabric and surface; broken, base missing.

Parallels

ʿAmman: Two biconical jars in various fabrics have similar features except for the handles which extend from the rim to the change of direction (Harding 1951: fig.3:27, 31), whereas the handles on V691 extend from the rim but rest on the shoulder.

Qasr al-Hallabat: One gray ware cooking pot (Ghrayib 2003: fig. 10i) with a simple rim was recovered in House 1 along with a cooking casserole; a second pot (fig. 10j) with a ribbed rim was located in House 3.

Madaba: A beautiful example of this wide-mouth cooking pot with a ribbed body and two handles from the rim to the shoulder appears in the corpus from House H (Acconci and Gabrieli 1994: fig. 48:8).

Umm al-Walid: A single example of a small deep cooking pot with a simple vertical rim is among the small number of cooking vessels recovered at this site (Bujard and Joguín 2001:141; fig. 3:22).

G. BOTTLES

G-1. Cylindrical Bottles

Criteria: The vessels in this class are tall, nearly cylindrical bottles/jugs with a relatively flat base. Although varying slightly from neck to base, the thickness of the body wall is less than 0.5 cm thick. Vessel 659 is not a true cylinder, as it swells slightly at the shoulder. Included in this class is a cylindrical ‘jug’ with a trefoil mouth, a single handle, and a Greek inscription (V618).

Catalogue

V659 (Fig. 8.8:1; D32:26/42.12). Body and base; rim and neck missing; body D *ca.* 13.8, H 24.0+ cm; light red (2.5YR 6/6); core, pinkish gray (7.5YR 7/2); broken.

V675 (Fig. 8.8:2; D21:17/5.11). Body and base; body D *ca.* 10.0, H 17.0+ cm; pink (5YR 7/4); broken.

Description and Technology: Both of these bottles were formed on a fast wheel, using well-levigated clay. The rills are clearly visible on the interior, and in the case of V659, there are gentle opposing ribs on the exterior. Vessel 675 has a complete base which was pushed in to form a shallow omphalos. The exterior of the base was tooled, leaving drag marks around the edges, and a central protrusion or navel.

Parallels

Khirbet en-Nitta: Two cylindrical juglets, each with a relatively wide mouth (Kelso and Baramki 1955:33; pl. 27: N1, N2), may be considered as late Byzantine precursors of the bottles found at Tall Jawa.

Amman: Excavations on the Citadel also produced a partially preserved cylindrical bottle, with omphalos base (Bennett 1978: fig. 5:716).

Siyâgha (Mount Nebo): A good example of the cylindrical body shape is seen in Jug 400 (Schneider 1950: fig. 11:2); like V675, the omphalos base has a button on the exterior.

Madaba: A cylindrical bottle, missing its rim, is a good representation of this type (Acconci and Gabrieli 1994: fig. 53:13). Another example comes from debris in the Late Byzantine–Early Islamic complex in Field C (Harrison *et al.* 2003: for. 11:6).

Ayn az-Zâra (Callirrhôé): A jug made of light red fabric with a wide mouth and a single handle has a similar body form (Clamer 1997: pl. 20:10).

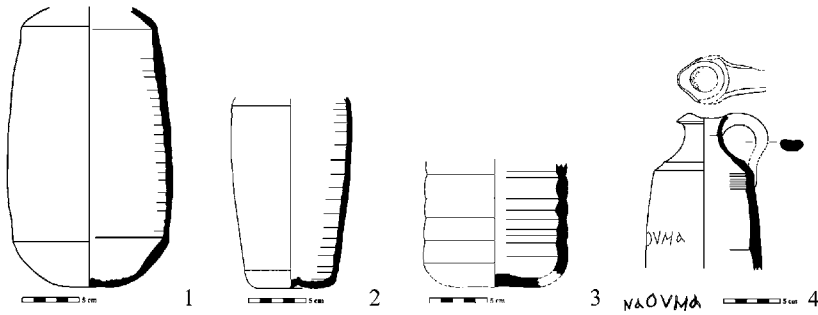


Figure 8.8. Bottles, 1) V659; 2) V675; Thick-walled bottle; 3) D23/33.15; Inscribed jug; 4) V618.

Umm al-Rasas: Two styles of bottles are present among the pottery from the dump, one cylindrical with a shallow omphalos base and the other slightly piriform with a flat base (Bujard and Joguín 2001: fig. 1:10, 11). From the church excavations, another bottle is partially preserved (Alliata 1991: fig. 19:20).⁵¹

G-2. *Thick-Walled Cylindrical Bottles/Jugs*

Two examples of thick-walled bottles/jugs are present in the corpus; a group of three sherds which include a registered base (D23/33.15) and Naoumas' jug (V618; Daviau and Pietersma 1995) with its Greek inscription.

Catalogue

D23:16/33.15 (Fig. 8.8:3). Group of sherds; D 12.0 cm; light reddish brown (5YR 6/3) fabric; int surface reddish brown (2.5 YR 5/3); ext very pale brown slip (10YR 8/2); 2 sherds+base.

Description and Technology: The fabric of these sherds is a dark crisp ware seen in other jug and jar forms. In this instance the interior rills are quite deep and the exterior surface is smooth, covered in pale brown slip with carefully made grooves running around the body. The base is almost flat with a vestigial ring around the outer edge. In spite of continued excavation and publication of early Islamic sites, few actual parallels can be cited.

⁵¹ The description appears to pertain to a jug (Alliata 1991: fig. 19:21) with incised combing on the neck and body.

Parallels

Siyâgha (Mount Nebo): One example of a jug with a flat base (399; Schneider 1950: fig. 11:1) appears in the corpus from Mount Nebo, although this vessel is relatively thin walled by comparison with the vessels in this type.

Catalogue

V618 (Fig. 8.8:4; D2:11/19.1). Rim, handle and body; D 10.3, H 14.5 cm; light reddish brown (5YR 6/3) fabric, reddish gray (5YR /2) ext; inscribed; base missing; neck broken.

Description and Technology: The cylindrical body of V618 is thick-walled (0.8 cm) with deep rills on the interior. A distinctive ridge marks the change of direction at the shoulder, and from this point on, the wall of the neck and rim are relatively thin (0.5–0.3 cm). The jug has a short neck (4.0 cm), a trefoil spout, and a strap handle which is broken between the rim and the shoulder. This vessel is preserved to a height of 14.5 cm that suggests it may be comparable to a jug (D32/44.0) which measures *ca.* 24.0 cm from the shoulder to immediately above the base. To date, no clear parallels have been identified that would illustrate the complete form of this vessel.

H. STRAINER JUGS

Criteria and Technology: The jugs in this class differ from those in Class J (below), in that they have a relatively wide neck and a neck strainer with round holes. Otherwise, they share many of the same piriform and biconical body forms as jugs without a strainer. Rim shape and fabric vary considerably from one vessel to another in the corpus, as each jug is unique. Additional fragments of strainers indicate that this was a relatively popular vessel type at Tall Jawa. Evidence from Byzantine and Abbasid sites suggests that this was a long-lived form (Ben-Tor and Rosenthal 1978:70=Avissar 1996: fig. XIII.153:2, Type 2), although in the later examples the holes in the strainer are oblong rather than round.

Best preserved are two jugs, each with a flaring shoulder, suggesting a piriform body. Here, the similarity ends; V650 has a white (very pale brown) slip, bands of combing on the shoulder, a tall neck, and a squared flaring rim. V649 in unslipped, has a relatively wide ribbed

neck, and is decorated with incised lines and punctures in an elaborate floral design.

A third vessel, with only the neck, part of the strainer, the rim, and handle preserved, has an elaborate triangular rim that sits on the top of a gently flaring neck. The strainer sherd consists of a thick disc, perforated close to the edge where it meets the neck, as well as holes placed randomly across the disc. At the separation, it is clear that the neck was attached to the strainer and the holes were formed prior to firing.

Function: Strainer jugs are also common at other sites in the region, such as Umm al-Walid. Joguín (2001:644) interprets the function of strainer jugs as evidence for the consumption of wine and other alcoholic beverages which had a residue of organic matter floating in the liquid. Certainly, the strainers were not needed in jugs that served as water pitchers.

H-1. Strainer Jug with Combed Decoration

Catalogue

V650 (Fig. 8.9:1; D32:26/42.27). Rim to carination; rim D 5.5, body D 15.5 cm; very pale brown (10YR 7/3) fabric, very pale brown slip (10YR 8/3); combed shoulder; broken.

Description: The rim is partially preserved, showing clearly that it is squared with a slight overhang on the exterior. There is a mid-neck ridge, and the handle springs from the ridge, not the rim. On the shoulder, there are two bands of fine combing.

H-2. Strainer Jug with Incised and Punctured Decoration

Catalogue

V649 (Fig. 8.9:2; D21:17/7.19). Rim to carination; neck D 7.0, body D 19.5 cm; pink 7.5YR 7/3–7/4) fabric; incised, punctured; broken.

Description: The rim is shattered leaving only the relatively wide neck and the handle that extends from the rim to the shoulder. The neck is sharply ribbed, and the shoulder has incised and punctured tree and herringbone designs, alternating between the handle and the opposing spout.

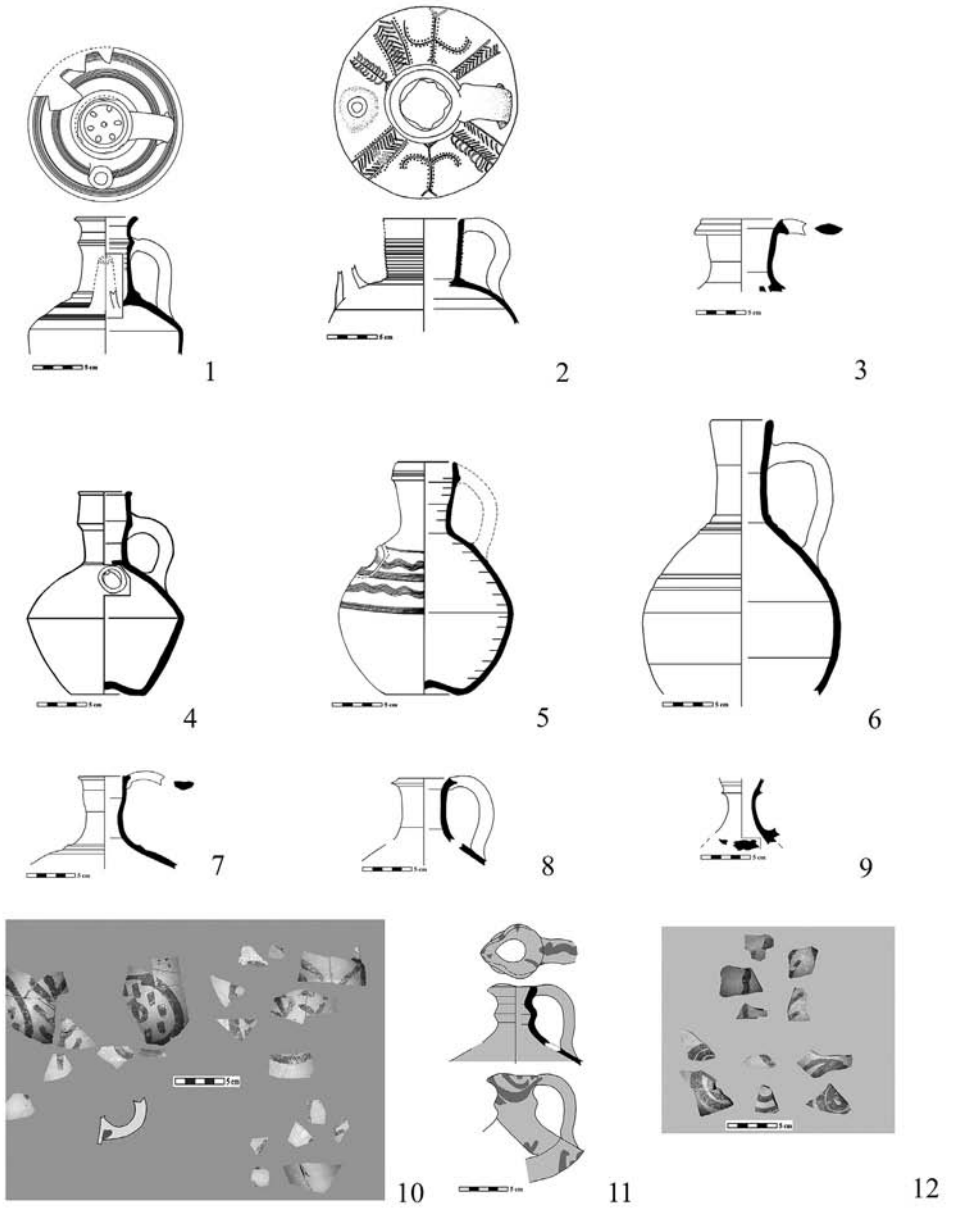


Figure 8.9. Strainer Jugs, 1) V650; 2) V649; 3) V1511; Spouted Jugs; 4) V634; 5) V643, Narrow-neck Jugs; 6) V689; 7) D31/57.14; 8) V1522; 9) D22/44.1; 10) V683; 11) V658.

*H-3. Strainer Jug without Decoration**Catalogue*

V1511 (Fig. 8.9:3: D31/37.6). Rim D 8.9, neck H 6.5 cm; reddish yellow (5YR 7/6) fabric, light reddish brown (5YR 6/3) exterior; broken.

Descriptions: This jug has a triangular rim similar in style to storejar rim D31/37.12. The principal difference between these two vessels is the diameter of the rim and neck and the presence of the strainer in the neck of V1511.

Parallels

Although the strainer jugs appear to be related to wine consumption, it is noteworthy that there are no illustrated parallels from the churches at Khirbat al-Karak or Umm al-Rasas. It is apparent, however, that the strainer tends to separate from the neck when the jug breaks.⁵²

Siyāgha (Mount Nebo): The strainers in the neck of two jugs are described in detail, one strainer has 5 holes and the other has 8 (Schneider 1950:94). Jugs with combed decoration are also reported (Saller 1941: pl. 155:44–46).

J. JUGS

Jugs appear in a variety of shapes and fabrics, including light-coloured levigated clays and a type of crisp, dark ware. Narrow-necked jugs appear with a biconical or globular body and have a spout, either opposite the handle or at a right angle to it. The exception to this is globular jug V658, where the rim is trefoil, and much of the body, including the spout, is missing. Wide-mouthed jugs have a gently pulled rim which forms a pouring spout. Among jugs as a whole, three basic body types are represented; biconical, globular, and piriform.

J-1. Biconical and Globular Jugs

Only one narrow-necked jug is truly biconical (V634), while several others appear to be nearly globular. These can all be distinguished from the wide-mouth globular and piriform jugs discussed below.

⁵² This is seen clearly in the neck sherd of a jug found at Bethany (Saller 1957: fig. 62:2441).

J-1/a. Biconical Undecorated Spouted Jug

Few jugs with a biconical body shape are present in the corpus. The most characteristic is a plain jug without decoration, which has a narrow neck with a perforated disc at the base, a spout, and a handle. The recovery of 10 additional spouts testifies to the presence of numerous spouted jugs in the archaeological record.⁵³

Catalogue

V634 (Fig. 8.9:4; D12/9.1). Intact jug; rim D 4.4, body D 15.6, H 19.5 cm; light red (2.5YR 6/6) fabric, gray (5YR 6/1) slip; spout missing; slip worn and pitted.

Description and Technology: Vessel 634 is a relatively thick-walled vessel (ca. 0.5 cm), with a sharp change of direction in mid body, and an omphalos base. The fabric is a red ware, with a gray surface, worn through in spots. The narrow (3.4 cm) neck has a mid-neck ridge; above that point the neck is offset and somewhat wider. Inside the base of the neck, the line of the body continues and ends in a small opening. Although this hole is considerably different from the multi-holed strainers found in wide-necked jugs, this feature protected the contents of V634 against evaporation and the intrusion of insects (Joguín 2001:644).⁵⁴ A conical spout was placed on the shoulder at 90° from the handle, which springs from the neck ridge to the shoulder. The number of conical spouts from various vessels not represented among the mended vessels indicates the importance of the spout for pouring.

The red ware fabric is more porous than the crisp wares, which are more common in the corpus. Limestone inclusions in the red ware are relatively large (<2.3 mm), with the result that the surface is pitted where the limestone exploded during firing.

Parallels

Khirbat al-Mafjar: Two jugs and one juglet are illustrated with a partial closure at the base of the neck (Baramki 1944: fig. 15:5, 6, 16). Although this may be the point at which the neck was attached to

⁵³ Narrow spouts on jugs are also found at Umm al-Rasas (Alliata 1991: fig. 22:24) and at Mount Nebo; Schneider (1950:96) mentions ca. 100 spouts, many attached to body sherds.

⁵⁴ The disc was also a protection against spillage from the neck, when the jug was tipped for pouring from the spout.

the vessel, the remaining opening is relatively small, similar to that in V634.

Pella: An undecorated jug with a spout opposite the handle is similar, but not identical in conception to V634. It has a neck ridge, comparable to TJ-D22/44.1 (Watson 1992: fig. 5:36).

Amman: Although similar in shape, a spouted jug from the Citadel has a painted design of a swirl and a branch (Bennett 1978: fig. 5:719).

Umm al-Rasas: A jug with a mid-neck ridge and a spout close to the handle on one side (Alliata 1991: fig. 23:18) shares much in common with V634; the principal difference is the painted decoration. A wide-mouth jug with an everted triangular rim (Alliata 1991: fig. 14:3), similar to V650 above, has a spout opposite the handle. Spouts attached to broken body sherds are also reported (Alliata 1991: figs. 22:24; 26:8).

Pella: Although somewhat piriform in body shape, several jugs dated to the mid- 8th century have a relatively narrow neck with a mid-neck ridge and a spout, although in these examples, the spout is opposite the handle (Walmsley 1995: fig. 7:1, 2).

J-1/b. Narrow-Necked Spouted Jug with Incised Decoration

Criteria and Technology: The best example of this jug type (V643) was made on a fast wheel, with an omphalos base closed from the outside and pushed in. The rim is offset and there is one opposing handle. The incised wavy line decoration on the exterior runs around the shoulder and mid-body of the jug.

Catalogue

V643 (Fig. 8.9:5; D32/42.30). Rim D 7.0, body D 17.0, H 23.5 cm; reddish brown (2.5YR 5/4) fabric and ext, light gray (2.5YR 7/1) to very dark gray (N3/1) core; broken.

Description and Technology: Jug V643 has a rounded body, a ridge at the top of the shoulder, a narrow neck, and an omphalos base. The rim is folded and the handle springs from the rim to the shoulder. The upper body is decorated with a combed pattern of alternating wavy and straight lines. The spout was attached after the jug was incised; this is clearly seen where the spout has broken off. Here, one can see that the hole for the spout in the side of the jug was cut when the jug was leather hard, forming a neat edge. The spout was attached on the outside and the clay at the base of the spout was spread out, covering part of the combed design.

The interior and exterior fabric of this jug fired gray, but the interior surface and core is dark brown. The ware is extremely hard and crisp with very clean breaks.

Parallels

Bethany: The closest parallels are two partially preserved spouted jugs, both with incised straight bands framing bands of wavy lines (Saller 1957: fig. 62:7306, 7305).

Ma'in: A similar, but simpler design is seen on a jug from the Byzantine church at ad-Dayr (Piccirillo and Russan 1976: fig. 2:3=pl. XXIX,2:8). For the most part, the pottery appears to date to the 6th century (AD 530–580) with formal parallels at Pella.

Khirbat adh-Dharih: A good example of a narrow-necked globular vessel in gray ware with incised wavy lines is dated to the Late Byzantine–early Islamic period in southern Jordan (Waliszewski 2001: fig. 4:6).

J-1/c-1. Narrow-Necked Plain Jugs

A number of jugs without decoration can be identified in the sherd material. Rim forms vary, as do the fabrics.

Catalogue

V689 (Fig. 8.9:6; D23/11.1). Rim D 6.1, body D *ca.* 19.5, H 29.5+; pink (5YR 7/4) fabric, light gray (10YR 7/2) exterior; broken.

Description: Vessel 689 is unique in that it has a pulled spout that is 90° to the left of the handle, comparable to the position of certain attached spouts. There are no known parallels for this style.

D31/57.14 (Fig. 8.9:7). Rim D 5.5 cm; light reddish brown (2.5YR 6/4) fabric, very pale brown exterior slip(?).

V1522 (Fig. 8.9:8; D23/16.7). Rim D 5.2 cm; pink (7.5YR 7/4) fabric, very pale brown (10YR 8/3) exterior; broken.

Parallels

Pella: A nearly complete example of a parallel to V1522 is a jug with a flaring triangular rim on a tall neck and a collar at the base of the neck (Watson 1992: fig. 5:37).

Umm al-Rasas: A number of jugs, each with a triangular everted rim, shows the popularity of this form in the region (Alliata 1991: figs. 23:4; 26:10).

J-2. Globular Jugs

J-2/a-1. Globular Narrow-Necked Jugs with Painted Decoration

Although the body shape is less than certain, a group of mendable sherds represent the body of a globular vessel (V683). The light red surface is decorated with dark red paint in a pattern of concentric circles and dots. A second vessel (V658), also incomplete, has a narrow neck and flaring trefoil rim. The body sherds are decorated with a tight spiral design, twigs, and vertical wavy lines. The third jug in this group is gray slipped with white paint, but has the same neck ridge as V658.

Catalogue

V683 (Fig. 8.9:10; D32/18.4). Body sherds; light red (2.5YR 7/6) fabric and surface, weak red (10R 5/4) paint; sherds.

V658 (Fig. 8.9.11a, b; D2/28.25). Rim D *ca.* 5.0, neck D 3.8; pink (2.5YR 7/4) fabric, light red (2.5YR 7/6) surface, weak red (10R 4/4) paint; broken.

D22/44.1 (Fig. 8.9.9). Red ware; light red (2.5YR 6/6) fabric, dark gray (N4/) slip, white (N8/) paint on shoulder; broken (possible spout scar).

Parallels

Jerusalem: A similar design of painted circles and dots appears on a sherd from the south hill (Mazar and Mazar 1989: pl. 13:33).

Tell Hassān (Jericho): A similar vessel type assigned to the Arab reuse of the north aisle of the basilica has this same style of circle-and-dot decoration (Baramki 1936: fig. 3:2).

Nu'aymah-Dohalah: Several body sherds, probably from jugs or jars, were painted with a number of designs similar to those found on Tall Jawa vessels. These designs include the spiral, vertical wavy lines flanking a floral sprig, and a combination of straight bands, wavy lines, and concentric semicircles filled with dots (Sari 1992: figs. 7:1, 2; 8:1).

Jarash: A complete example of a jug with a neck ridge and spout (x1), except for the handle, was recovered in Room A12 (Fisher and McCown 1931: pl. 13). The style of the neck serves as a parallel for D22/44.1.

Siyāgha (Mount Nebo): A design of concentric circles filled with dots, along with a floral sprig, appears on a large body sherd (Schneider 1950: pl. 158 B:28a–c); on two of these sherds (a, c) there is a small

collar or ridge at the base of the neck comparable to the ridge on V683 (sherd D32/19.8).

Umm al-Rasas: A jug with red paint has a narrow neck, a neck ridge, and a spout (Alliata 1991: fig. 23:18).

J-2/a-2. Globular Wide-Necked Jugs with Painted Decoration

The jugs in this group are almost identical to small jars, except for the single handle and the pulled rim forming a spout.

Catalogue

V639 (Fig. 8.10:1; D23/9.1). Ribbed shoulder and body; neck D 8.0, body D 16.8 cm; light reddish brown (2.5YR 7/4) fabric, very pale brown (10YR 8/3) slip, reddish brown (2.5YR 5/4) paint; handle and base missing (Daviau and Beckmann 2001: fig. 3:15).⁵⁵

Description and Technology: The only feature that distinguishes this jug type from small jars is the single handle and the spout. It is, in fact, a twin of Vessel 638 (see below, type Q-2). The rim is gently pinched to form a spout on the side opposite the handle. On the lip, there is evidence for painted lines crossing the top of the rim; otherwise the neck is undecorated. The body is ribbed and there is a pair of painted wavy lines which begin on either side of the handle and meet on the opposite side. The same pattern appears on a larger and heavier-walled piriform jug (V686, below).

Parallels

The closest parallels are the small jars with ribbed body and painted decoration (see below, Class Q).

J-3. Piriform Jugs

J-3/a. Wide-Necked Piriform Jugs with Painted Decoration

For the most part, deep painted vessels with two handles are classed as jars. Only a small number of sherds represent piriform jugs, distinguished by their single handle and a rim pinched into a gentle trefoil shape.

⁵⁵ This jug, originally published as a jar, was subsequently restored with the result that the spout was in position opposite the single handle; the vessel was then reassigned to the class of Jugs.

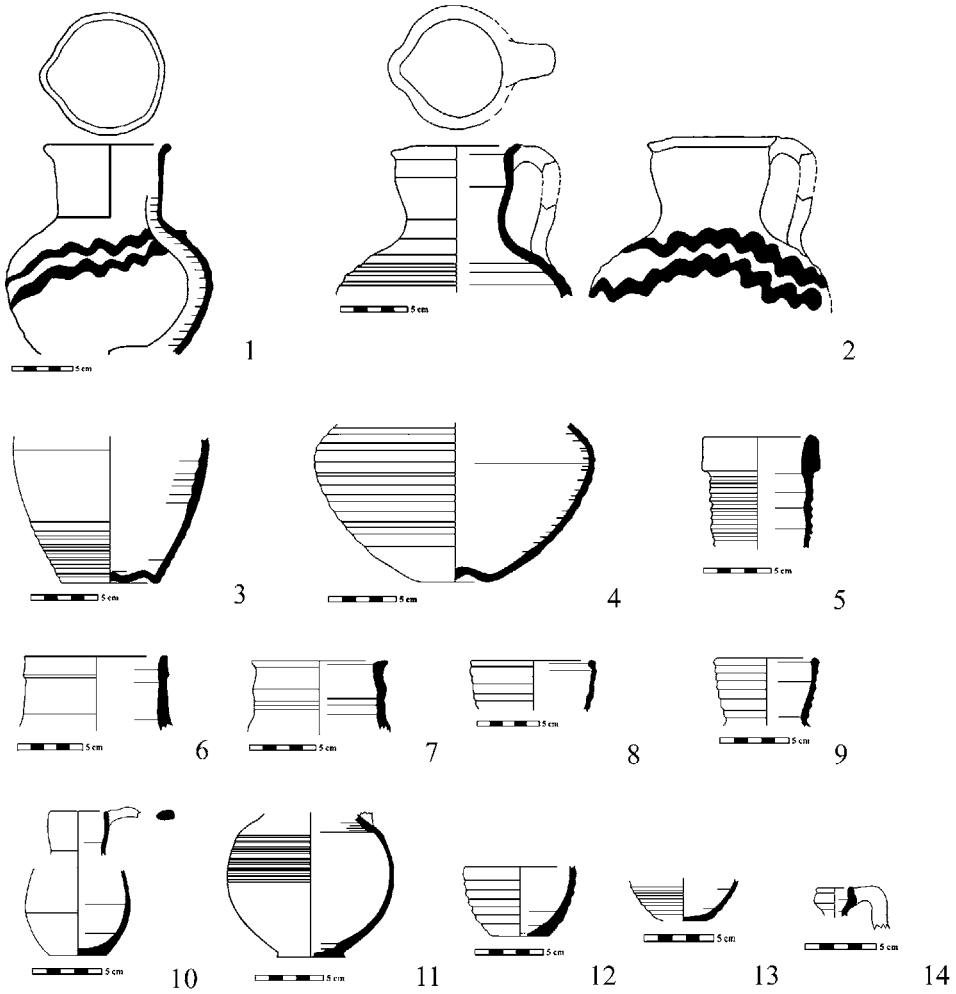


Fig. 8.10. Wide-necked Jugs, 1) V639; 2) V686; Jug bodies and rim sherds, 3) 684; 4) D23/17.5; 5) D13/30.4; 6) D22/7.4; 7) D0/200.13; Juglets, 8) D12/30.2; 9) D31/56.2; 10) V1518; 11) V656; 12) D23/10.18; 13) D23/11.14; Unguentaria, 14) D22/7.2.

Catalogue

V686 (Fig. 8.10:2; D23:8.4). Rim to shoulder; rim D 9.0, rim thickness 0.4 cm; reddish yellow (5YR 7/6) fabric, very pale brown (10YR 8/3) slip, weak red (10R 4/3) paint in wavy lines.

Description: Vessel 686 is only partially preserved. The rounded rim is gently everted and stands on a relatively tall (6.2 cm) neck. The slightly pinched spout⁵⁶ is opposite the handle. This vessel is covered with a very pale slip and the neck is undecorated. Two painted wavy lines decorate the gently ribbed shoulder and droop down below the spout.

J-3/a. Piriform Jugs without Decoration

A number of piriform vessels are only partially preserved. The body and base of each of these vessels suggest a rich assemblage of narrow- and wide-bodied bottle, jug and jar types in use in Building 600.

Catalogue

V684 (Fig. 8.10:3; D32/45.2). Bottle(?); body D *ca.* 15.5 cm; light brown (7.5YR 6/4) fabric, pink (5YR 7/4) exterior; broken.

D23/17.5 (Fig. 8.10:4). Body D 20.5 cm, pink (7.5YR 7/4) fabric, reddish yellow (5YR 7/8) exterior; broken.

Parallels

Ramat Hanadiv: Included in the Byzantine period pottery is an undecorated strainer jug with a spout and a piriform-shaped body (Calderon 2000b: pl. XXIV:63). This form is the closest parallel for the body shape of the Tall Jawa jug.

*J-4. Jug Rims without Known Body Form**J-4/a. Folded-Rim Jugs without Known Body Form*

Several examples of narrow necked vessels, which appear to have at most one handle, are classified as jugs. The most characteristic rim form is that of a folded, rectangular, or triangular rim with a vertical stance. In two examples cited here, the fabric is well levigated and fires bright

⁵⁶ Another rim sherd (D12/18.2) suggests a comparable vessel.

‘pink’; in the second example (D22/7.4), the reddish yellow fabric is coated with a brown slip.

Catalogue

D13/30.4 (Fig. 8.10:5). Rim and neck sherd; D 9.0, rim thickness 0.9–1.0 cm; reddish yellow (5YR 7/6) fabric; grooved neck.

D22/7.4 (Fig. 8.10:6). Rim and neck sherd; D 11.0, rim thickness 0.8 cm; reddish yellow (7.5YR 8/6) fabric, reddish brown (5YR 5/4) slip.⁵⁷

Parallels

Khirbat an-Nawāfla: A pink ware jug with a similar rim and neck shape is included in the early Abbasid collection (‘Amr *et al.* 2000: fig. 15:1).

Tall al-Kharrār: This rim form is already represented in a corpus of Byzantine period ceramics at sites in the Jordan Valley (Waheeb 2001b: fig. 13:4).

al-Muwaqqar: Najjar (1989:316; fig. 6:25) compares the preserved rim and neck of a “jar” to an Abbasid form from ‘Ana in Iraq, apparently because comparable forms were not then known from Transjordan.

Hisbān: This rim form with a ribbed neck appears in a well-fired, whitish fabric (Sauer 1973:41; figs. 111–112).

Qaṣṭal: Slight variations of this rim form on vessels described as water ‘jars’ are relatively common in the corpus from Qaṣṭal (Carlier 1984:45: N^{os} 1–5; 46: N^o 7).

J-5/c. Everted Rim Jugs without Known Body Form

Jugs with everted rim are rare in the Tall Jawa corpus, but are known from several late Byzantine sites.

Catalogue

Sherd D0/200.13 (Fig. 8.10:7). Triangular rim; D 9.5 cm; light red (2.5 6/6) fabric and exterior.

⁵⁷ This neck form may be classified as a jar, although in the Tall Jawa corpus, jars have different rim forms, and different fabrics.

K. JUGLETS

Only a small number of sherds representing either the rim and neck or the lower body of small juglets are preserved in the corpus. The rim and neck sherds are thin-walled, with ribbed and plain necks in equal numbers. The lower body sherds are very thin-walled and ribbed with a flat base.

*K-1. Tall-Necked Juglets**K-1/a-1. Tall Ribbed-Neck Juglet*

Criteria: The rim of ribbed-neck juglets is simple in form with a rounded lip. The neck is in the range of 4.0–6.0 cm tall, and is either loosely or widely ribbed. Fabrics vary from soft, thin red ware to hard, crisp gray ware.

Catalogue

D12/30.2 (Fig. 8.10:8). Small jug/juglet; D 9.6 cm; neck H 4.4+ cm; light red (2.5YR 7/6) fabric, light red (10R 7/6) ext; sherd.

D31/56.2 (Fig. 8.10:9). D 7.3, neck H 5.0 cm; pink (5YR 7/4) fabric, pink (7.5YR 7/3) ext; sherd.

Parallels

The simple rim and ribbed-necked juglets are a form already known in the Byzantine period that apparently continues into the Umayyad period.

Jarash: Several examples from Jarash are evidence of this continuity (pre-Umayyad, Gawlikowski and Musa 1986:fig. 6:8; Umayyad, Gawlikowski 1986: pl. XI, upper left).

Siyâgha (Mount Nebo): Jug and juglet rim and neck sherds include examples of vessels with bulging (convex) ribbed necks (Bagatti 1985: figs. 6:2; 10:6)

*K-1/a-2. Tall Plain-Necked Juglets**Catalogue*

V1518 (Fig. 8.10:10; D31/44.10). Body+rim and neck; very pale brown (10YR 8/2) fabric and exterior; broken.

K-1/b-1. Globular Juglets

Medium size thin-walled small jugs and juglets with a flat base are present in various fabric types. V656 is grooved/combed on the upper body, but is otherwise without decoration.

Catalogue

V656 (Fig. 8.10:11; D12/28.2). Body D 12.5, H 10.9+ cm; very pale brown (10YR 7/3) fabric, pale yellow (2.5Y 8/2) exterior; broken.

Parallels

Amman: The closest parallel in shape is the gently ribbed small jug assigned to the group of early medieval ceramics (Olávarri-Goicoechea 1985: fig. 22:16).

K-1/b-2. Ribbed-Body Juglets

A number of small base sherds and bases with a lower ribbed body appear to be juglets. For the most part, these sherds are heavily coated with lime, probably the result of a reaction of the lime in the soil and their contents.

D23/10.18. (Fig. 8.10:12). Base D 3.9; pinkish gray (7.5YR 7/2) fabric; very pale brown (10YR 8/2) slip, interior soot stained.

D23/11.14 (Fig. 8.10:13). Base; D 3.8 cm; pinkish gray (7.5YR 7/2) fabric, very pale brown (10YR 8/2) ext; sherd.

Parallels

Siyâgha (Mount Nebo): A number of disc and flat-based juglets were recovered during the initial excavations and are published by Bagatti; one of these has a flat base and ribbed lower body (1985:fig. 18:12).

K-1/c. Offset Rim Unguentaria

Only one unguentarium with an offset rim is in the corpus, indicating that this was not a common juglet form.

Catalogue

D22/7.2 (Fig. 8.10:14). D 2.5 cm; light reddish brown (2.5YR 7/4) fabric, pink (5YR 7/3) exterior; sherd.

Parallels

Siyâgha (Mount Nebo): A number of unguent juglets were found in the church (Bagatti 1985: figs. 9:3; 18:7, 8).

Umm al-Rasas: An example of the off-set rim miniature juglet is identified as an unguent vessel by Alliata (1991: fig. 27:30).

M. LIDS

M-1. Stump-Handled Lids

Criteria, Technology, and Function: Only one fragment of a bowl-shaped lid with a stump handle is present in the assemblage. Although the rim is missing and the handle is broken, the major features are sufficiently well preserved for identification. The lid was crudely formed on a stump of clay in the form of a shallow, straight-walled bowl, with a thick, string-cut base. The handle consists of a stump that rises vertically from the centre of the base. It is assumed that this lid was designed to fit into the neck of a jug or storejar, although this association has not been demonstrated at Tall Jawa. This style of lid is typically found in late Byzantine assemblages.

Catalogue

V679 (Fig. 8.11:1; D22/23.1). Base; white–very pale brown (2.5YR 8/1–10YR 8/3) fabric; broken.

Parallels

Déhès: This form is represented in the late Byzantine assemblage at Déhès in northern Syria. It is interesting that the earlier material is formed of a clay that fires to a light colour, whereas the later

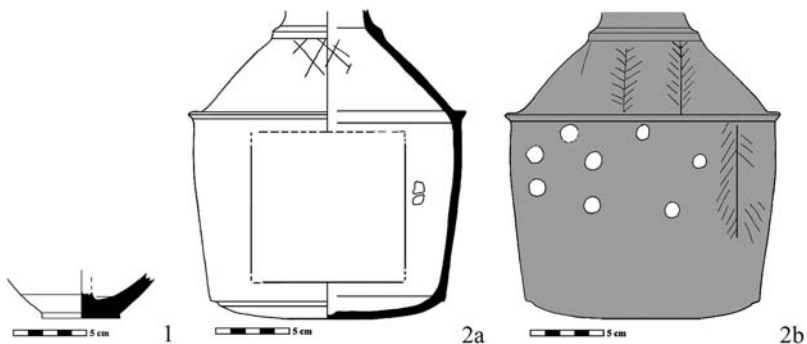


Figure 8.11. Lid, 1) V679; Lantern, 2) V670.

form fires red (Bavant and Orssaud 2001:38; fig. 8:36, 37). Another example of a lid and its associated jar also come from D  h  s (Orssaud 1992: fig. B/2:10, 11).

Khirbat al-Karak: Two examples of this style of “knobbed lid” are reported from the Byzantine church (Delougaz and Haines 1960: pl. 56:3, 4).

Ma‘oz Hayyim: Also made of a simple “buff-white” fabric is a lid identified as Khirbat al-Mafjar ware (Tzaferis 1982:237; fig. 11:10).

Khirbet en-Nitla: Among the ‘Arabic’ types which date to the 8th–early 9th century is a red ware lid with a central ‘lifting knob’ (Kelso and Baramki 1955:37; pl. 29: N155). A second example, in “buff creamy ware” (Kelso and Baramki 1955:39; pl. 31: X35), comes from Tell Abu al-‘Alayiq. This lid is badly broken, but its published description suggests that it is closer in fabric type to the Tall Jawa lid.

Jerusalem: A unique example of a lid with a Greek inscription is shown with its matching bowl (Crowfoot and FitzGerald 1929: pl. XV:23).

Nessana: At Nessana, only one lid base and stump are reported in the Colt Excavation publication under miscellaneous forms (Baly 1962: pl. LVIII:18).

Tell Hass  n, Jericho: A good example of such a lid is found in a Byzantine assemblage (Baramki 1936: fig. 3:6).

Khirbat al-Mafjar: A “bowl with a knob in the middle” is identified as ceramic ware 12a, a “creamy ware” (Baramki 1944: fig. 12:27), a ware found in basins that is suggestive of the utilitarian character of this lid.

Nu  sib Uweish  ra: At this monastery near Jericho a lid with a stump handle is associated with casserole covers and hemispherical bowls (Netzer and Birger 1990:199: fig. 4).

Tall Nimrin: A complete example of this type of stump handle lid appears at Tall Nimrin (Flanagan *et al.* 1994: fig. 18:10).

Jarash: A lid with a central stump handle from the Macellum at Jarash (Uscatescu 1996: fig. 101:700) is dated to the transition Byzantine–Umayyad period.

Amman: From the citadel is a lid with a thick stump ending in a knob (Harding 1951: fig. 2:42).

Tall al-Khar  r: This style of lid is represented in the collection of Byzantine period ceramics recovered during an initial excavation and survey season (Waheeb 2001b: fig. 12:3), as well as during excavation at the Baptism site (Abu Shmeis and Waheeb 2002: fig. 12:5).

Madaba: Two lids from the cave collection (Harrison 1994: fig. 6:14, 15) are similar in shape to the lid from Tall Jawa. Three other examples come from House B (Acconci and Gabrieli 1994: fig. 33:78, 79, 81). *Siyâgha (Mount Nebo)*: Complete examples of this lid form reveal that these lids were “coarsely fashioned” (Schneider 1950:123; fig. 14:5) and typically had a flat or disc base. A lid sherd appears to indicate that in some cases the handle was quite short (Bagatti 1985: fig. 17:10).

N. LANTERNS

N-1. Fenestrated Lanterns

Criteria: Several groups of mended sherds decorated with incised branches and a punctured palm tree design constitute the remains of a single fenestrated lantern. The top of the lantern was not preserved, however, the shoulder has a pronounced change of direction marked by a ridge and the body is cylindrical. A second change of direction leads directly to the flat base. Pairs of straight edges, cut at the leather-hard stage of manufacture, make it clear that there was a rectangular opening in the lantern, comparable to the door in a lantern from Beth Shean. Round holes were also cut into the wall of V670⁵⁸ and the decoration was incised prior to firing.

Catalogue

V670 (Fig. 8.11:2; D31:18/35.10). Body D *ca.* 23, H 21.5+ cm; pink (7.5YR 8/3) fabric, light brownish gray (10YR 6/2) exterior; broken.

Description: The shoulder is incised with a hatched design and a branch.

On the cylindrical body there is a large doorway on the front and on the back side there are incised, scratched, or punctured designs of branches⁵⁹ flanking finger-size holes.

Parallels

Although each lantern cited as a parallel is unique, their distribution is important for this unusual artefact class.

⁵⁸ Lanterns with holes and a similar body shape are found at Jarash, although one well preserved example is without windows (Gawlikowski and Musa 1986: fig. 7:8).

⁵⁹ This style of branch, with a single vertical stem and diagonal fronds appears on a lintel in Building XII at Mamfisis (Negev 1988b: fig. 8:81).

Buṣrā: A lantern sherd with a rounded shoulder and round perforations was recovered in the palestrum and dated to the late Byzantine–Umayyad period (Joly and Blanc 1995: fig. 6:73).

Beth Shean: A lantern with three rows of circular perforations in its round side wall and three rows on the sloping top has a single rectangular opening or door and a handle-shaped knob on the top. This lantern dates to the Byzantine–Umayyad transition period, while the sherds of a second lantern date to the early Umayyad period, showing continuity in the tradition of lantern making (Hadad 2002:143; 144, no. 530, 145, no. 531).⁶⁰

Samaria: Although incomplete, the lantern from Samaria is a good example of a fenestrated lantern (Crowfoot 1957a: fig. 84a:8). The wall of this lantern is undecorated with the exception of windows which are in the shape of upright and upside down triangular openings.

Khirbet Yattir: One of the closer parallels is a lantern with incised palm trees, arched windows, and triangular openings; sherds of this lantern were in place on a Byzantine church floor (Eshel *et al.* 2000:163: fig. 11).

Jarash: Although painted on different vessel forms, branch designs and diagonal crossed lines comparable to the incised designs on V670 are preserved on amphora sherds (Uscatescu 1996:620, 621), while an incised branch appears on a jar sherd (Uscatescu 1996: fig. 109:771).

Yājūz: Although found on a tall-footed candlestick, a similar inverted branch or “chevron” design is incised vertically (Khalil 2001: fig. 6:14).

Siyāgha (Mount Nebo): Handles and a small number of perforated sherds are all that remain of ceramic lanterns (Schneider 1950:125–129; pl. 157:26–30, 38).

Madaba: Two sherds from Byzantine contexts are those of amphorae incised with a similar floral or ‘palmette’ design (Acconci and Gabrieli 1994: figs. 16:15; 29:6).

Maʿīn: A sherd with an incised tree design was recovered from ad-Dayr, a Byzantine church complex (Piccirillo and Russan 1976: fig. 3:5).

Aqaba: The rim of a window from a lantern made of red-orange fabric with a cream coloured exterior surface was present in Kiln 1 (Melkawi *et al.* 1994: fig. 11:n).

⁶⁰ A perforated fragment of a Byzantine period lantern was also recovered, this one with large, finger-size holes (Hadad 2002:143; 144, no. 529).

P. PITHOI

P-1. Heavy-Rimmed Pithoi

Criteria and Technology: Pithoi are very large, piriform-shaped long-term storage jars made by hand, in contrast to the large bag-shaped jars (Type S), which were formed on the wheel. Within the Tall Jawa collection, several rim, shoulder, handle, and base sherds represent the remains of pithoi. Typical of the Tall Jawa pithos form is an everted, folded rim which is compressed (rolled) and bends down (folds back) to meet the top of the shoulder.⁶¹ In certain instances (V1551), rim sherds indicate clearly that the entire rim was formed separately and then attached to the neck of the vessel.⁶² This particular rim was made of extremely porous fabric when compared to the compact matrix of Sherd D23/16.35. Also represented are rims (D13/83.1; D23/8.7; V1550) which appear to continue the tradition of an everted rim, which is free standing and does not roll down to seal against the shoulder.

*P-1/a. Rolled-Rim Pithoi**Catalogue*

V1551 (Fig. 8.12:1; D31/46.1). Rim D 15.0 cm; light red (2.5YR 6/6) fabric, reddish gray (5YR 5/2) core; very pale brown (10YR 8/3) slip.

D23/16.35 (Fig. 8.12:2). Interior rim D 16.0 cm; light reddish brown (5YR 6/4) fabric, reddish yellow (5YR 7/6) surface; sherd.

Parallels

Nu'aymah-Dohalah: At this site with Byzantine and early Islamic pottery there are several examples of the rolled pithos rim (Sari 1992: figs. 13:1, 2; 14:1).

Qasr al-Hallabat: A good example of a pithos with a thick folded rim with a gray core was located in House 19 (Ghrayib 2003: fig. 10t).

Jarash: Several folded pithos rims dated to the late Byzantine period (Uscatescu 1996: fig. 97:642,645) are in the same group as triangular rim pithoi.

⁶¹ The pithos form found at Buṣrā is folded (Wilson and Sa'ūd 1984: fig. 511) but not compressed as is the most common form at Tall Jawa.

⁶² The same phenomenon was observed at Umm al-Rasas in the case of a pithos (*zira*) rim (Alliata 1994a:285; fig. 107=1991: fig. 17:1).

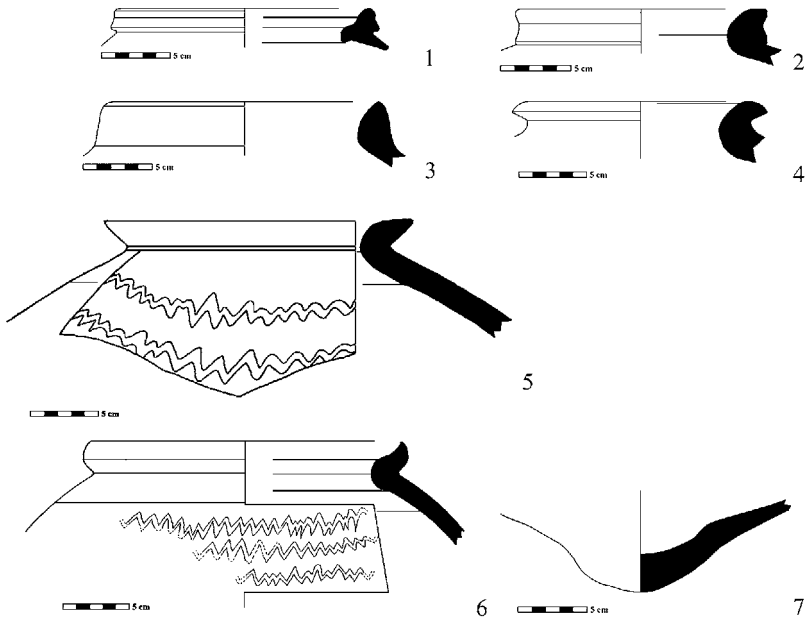


Figure 8.12. Pithoi, 1) V1551; 2) D23/16.35; 3) V1553; 4) D13/83.1; 5) V1550; 6) V1552; 7) D21/9.1.

Khirbat al-Kursi: A single rolled rim is included in the corpus from the chapel (‘Amr. 1988: fig. 22:1).⁶³

Hisbân: Sauer (1973:41; fig. 3:117) compares a folded pithos rim with Byzantine period examples from Mount Nebo⁶⁴ and Qubeibeh.

Siyâgha (Mount Nebo): A complete pithos with a rolled rim serves as a good model for late-Byzantine period pots; this vessel from the Chapel of the Theotokos has a piriform-shaped body, multiple handles, and a flat base (Bagatti 1985: fig. 9:7). Another example comes from the north room (1985: fig. 11:3), while a rolled rim sherd folded onto the neck, which is described as a basin rim, also has the form of a pithos rim (1985: fig. 16:11).

Madaba: This form appears already in the late Byzantine period at Tall Madaba (Harrison 1994: fig. 4:14) and continues in the Umayyad period (Acconci and Gabrieli 1994: figs. 47:18, 19; 59A:1).

⁶³ This form appears to be included in Group II that consists of deep cooking pots.

⁶⁴ The corpus of pithoi from Siyâgha (Mount Nebo) has jars with everted rims or folded vertical rims, rather than the later thick folded rim that lies back on the shoulder (Schneider 1950: fig. 1).

Ayoun Musa: This rim form also appears among the late Byzantine pottery from a church at the foot of Mount Nebo (Piccirillo 1984: fig. 9:1).

Maʿīn: Remains of a church complex (ad-Dayr) along the Maʿīn–Callirhoé road yielded a small corpus of Byzantine pottery, including the rolled-rim and upper body of a pithos (Piccirillo and Russan 1976: fig. 4:3a+b).

Umm al-Rasas: Red ware, hand-made pithos sherds, including a rolled rim sherd (Alliata 1987: fig. 5:8), were present in the pottery from the Church of Bishop Sergius. Certain of these pithoi were decorated with one or more incised wavy lines on the shoulder (Alliata 1991: fig. 18:15).

Ḥumayma: A well preserved pithos with four handles shows an early version of the internally thickened rim (ʿAmr and Schick 2001: fig. 7). In this case, it is upright on the exterior, whereas the Tall Jawa rims are folded over almost completely, closer in style to two other pithoi from Ḥumayma (2001: fig. 6:10, 11).

Khīrbat adh-Dhariḥ: At this southern site as well, there are several examples of the internally thickened pithos rim (Waliszewski 2001: fig. 2:2, 5).

Khīrbat Nakhīl: Pithoi from Phases 3 and 4 are rolled but are slightly different in shape (Kareem 1999: fig. 7:16, 17); see also Kareem (2001: fig. 2:17).

P-1/b. Folded Triangular Rim Pithoi

One rim sherd is triangular in shape and was formed by folding the clay vertically, directly above the shoulder.

Catalogue

V1553 (Fig. 8.12.3; D23/25.4). Interior rim D 17.0 cm; light reddish brown (2.5YR 6/4) fabric and ext; rim sherd.

Parallels

Capernaum: A single example of a triangular, relatively upright rim is part of a pithos with finger depressions on the shoulder (Tzaferis 1989: fig. 61:2).

Jarash: A pithos with a triangular rim was recovered in Room 14, west of the Temple of Artemis. This vessel has a piriform body with four handles and bands of wavy lines framing a chain design in the

upper register and a triangular pattern in the lower one (Fisher and McCown 1931: fig. 5).

Siyāgha (Mount Nebo): A pithos with a triangular upright rim has two incised wavy lines (Bagatti 1985: fig. 16:7).

Dhībān: Among the Byzantine sherds reported by Tushingham (1972: fig. 5:23) is an example of a rim flattened by tooling, although otherwise it is triangular in section. In a second example, the rim is not preserved; however, the same angular wavy incised pattern, consisting of two (or more?) widely spaced grooves, appears on a jar sherd reported by Winnett (1964: pl. 15:5).

Btayir (Site 76): In the surface collection recovered during the Karak plateau survey, Brown (1991:57; fig. 399) identified a rolled and folded pithos rim among the late Byzantine sherds.

P-1/c. Everted Rim Pithoi

One of the pithos rims (D13/83.1) with an everted stance was tooled on the rim, forming a flattened band and causing the clay to bend outward and terminate in a rounded lip. This vessel is of red ware with a white slip. Also in the same ware is a second sherd with an everted, profiled rim (D23/8.7), as well as a vessel with a triangular rim (V1550).

P-1/c-1. Everted Rectangular Rim Pithoi

Catalogue

D13:56/83.1 (Fig. 8.12:4). Exterior rim D 23.0 cm; red (10R 6/6) fabric, pinkish white (7.5YR 8/2) slip; incised wavy lines; sherds.

Parallels

Buṣrā: One of the pithos rims recovered in the Umayyad collapse of Stratum 3 is everted (Wilson and Sa'd 1984: fig. 521), similar in stance to the Tall Jawa sherd.

Al-Muwaqqar: Of the two pithoi with everted rim, only one (Najjar 1989: fig. 9:42) has the relatively vertical stance of the Tall Jawa sherds; unfortunately, Najjar does not assign this form a date.⁶⁵

Siyāgha (Mount Nebo): A single rim sherd represents the triangular vertical rim form (Schneider 1950: fig. 1:3).

⁶⁵ A second pithos rim (Najjar 1989: fig. 6:27) was folded to the inside, bending into the jar before being everted; Najjar assigns this form to the Abbasid period.

Umm al-Rasas: A red ware, hand-made pithos sherd with an everted rim (Alliata 1987: fig. 5:7) and a rolled rim sherd were present in the pottery from the Church of Bishop Sergius; as well, there were two sherds in Room G (Alliata 1987: fig. 19:7, 8), both with a single incised wavy line.

P-1/c-2. Everted Triangular Rim Pithoi

Catalogue

V1550 (Fig. 8.12:5; D2/12.1). Interior rim D 17.5 cm; light reddish brown (2.5YR 6/4) fabric, very pale brown (10YR 8/3) slip; incised wavy lines; broken.

Description: The rim of this pithos is sharply everted and thinned toward the lip, forming a triangular section. The shoulder is decorated with two thick wavy lines, each made with a single broad-toothed tool.

Parallels

Capernaum: A completely restored pithos with a rolled rim has three incised wavy bands on the shoulder immediately below the rim (Tzaferis 1989: fig. 61:1).

Pella: Although the shoulder appears to slope at a more oblique angle, the shape and stance of the rim of a dark gray jar with combed decoration (McNicoll *et al.* 1982: pl. 146:1) is similar to V1550.

Jarash: A wide-bodied, three handled pithos, also from Room 14 at Jarash, has an everted rim and three bands of combed wavy lines on the shoulder, with additional incised decoration below the handles (Fisher and McCown 1931: fig. 6).

El-'Al: Although the rim appears to be an everted, rounded lip rim, Vessel AL 223 has a set of three wavy lines on the shoulder, each formed with a broad-toothed tool (Reed 1972: fig. 4).

Siyâgha (Mount Nebo): Examples of the everted rim form appear to come from vessels with a different shoulder stance (Schneider 1950: fig. 1:1, 2, 4).

P-1/c-2. Everted Concave Rim Pithoi

The most unusual rim form is that of V1552; in this case, the rim is concave as if it were designed to have a cover.

Catalogue

V1552 (Fig. 8.12:6; D14/17.3). Interior rim D 16.0 cm; light red (2.5YR 6/6) fabric, pink (7.5YR 8/3) slip; incised wavy lines; broken.

*P-2. Stump Base Pithoi**Catalogue*

D21/9.1 (Fig. 8.12:7). Base sherd; light red (10R 6/6) fabric, gray (N6/) core, pink (7.5YR 7/3) exterior.

Parallels

Capernaum: Although similar in conception, the base of the restored pithos found embedded in the floor of Room 4 (Tzaferis 1989: fig. 61:1) is slightly more pointed than the one from Tall Jawa.

Jarash: A completely restored pithos from the Church of Bishop Isaiah illustrates well both the thick rim and the stump base (Clark 1986: pl. XII:24). Another example of a thick rounded base dated to the late Byzantine period comes from the Macellum (Uscatescu 1996: fig. 98:658).

Umm al-Rasas: A red ware base sherd from a thick-walled pithos (Alliata 1987: fig. 5:8) is typical of these large storejars.

Humayma: Although not an exact parallel, the base of a pithos from the Lower Church at Humayma is also a short stump base (Amr and Schick 2001: fig. 6:12).

Khirbat adh-Dharih: A gently rounded stump base and lower part of a pithos (Waliszewski 2001: fig. 2:8) was recovered from remains of the late-Byzantine–early or proto-Islamic period occupation.

P-3. Pithos Handles

None of the pithoi from Tall Jawa could be reconstructed. However, a number of hand-made body sherds testify to the presence of at least two distinct vessels. One red ware sherd has a complete handle, similar in appearance to those shown on the restored pithos from Capernaum (Tzaferis 1989: fig. 61:1).

Catalogue

D23/45.1 Sherd; L 11.1, W 3.5, T 2.2 cm; light reddish brown (2.5YR 6/4) fabric, pink (7.5YR 7/3) slip.

Parallels

Jarash: A similar pithos handle is among the late Byzantine sherds from the Macellum (Uscatescu 1996: fig. 99:674).

Q. SMALL JARS

Criteria: Three types of small jars are included in the corpus, very small jars, small jars, and small ribbed jars. Small jars may have served as small jugs, however they are classed as jars because they do have a relatively wide neck, not the narrow neck characteristic of the small jugs described above, nor do they have a spout. Common features among the three types of small jars consist of a straight vertical neck and a simple rim. The most complete examples (V601, V669) show the remains of two handles and an omphalos base. The painted decoration consists of a pattern of wavy lines on the neck and a variety of designs on the shoulder and body. Also belonging to Type Q-1 are sherds of a very small jar (V635) with heavy tooling evident on the neck, but no painted decoration, at least on the neck (Daviau and Beckmann 2001:261; fig. 3.11).

Technology: Small jars are thin-walled, crisp wares that were made on a fast wheel. The omphalos base was closed from the outside and pushed inward. Only on V669 is there evidence of irregular spacing between the rills that indicates the position of the last coil which was attached to the inverted body before the base was closed.

Q-1. *Very Small Jars*

Criteria and Function: Very small jars are thin-walled vessels, with a diameter that rarely exceeds 13.0 cm. Based on the best preserved examples, the form of the body is piriform with an omphalos base.

Catalogue

V601 (Fig. 8.13:1; D12:1/18.15). Rim D 8.0, body D 12.5, H 12.5 cm; reddish yellow (5YR 7/6) fabric, no core; pale yellow (2.5Y 8/2) slip on exterior, weak red (10R 4/4) paint; partially restored (Daviau and Beckmann 2001: fig. 3:10).

V669 (Fig. 8.13:2; D12:0.5/35.1). D 7.0, H *ca.* 12.5 cm; light brown (7.5YR 6/4) fabric, white (7.5YR 8/1) slip, reddish brown (2.5YR 5/4) paint; partially restored.

V635 (Fig. 8.13:3; D23:17/36.1). D 7.0, rim 0.5 cm thick; very pale brown (10YR 8/3) fabric, no core; pale yellow (2.5Y 8/2) slip, light reddish paint (2.5YR 6/4) paint (Daviau and Beckmann 2001: fig. 3:11).

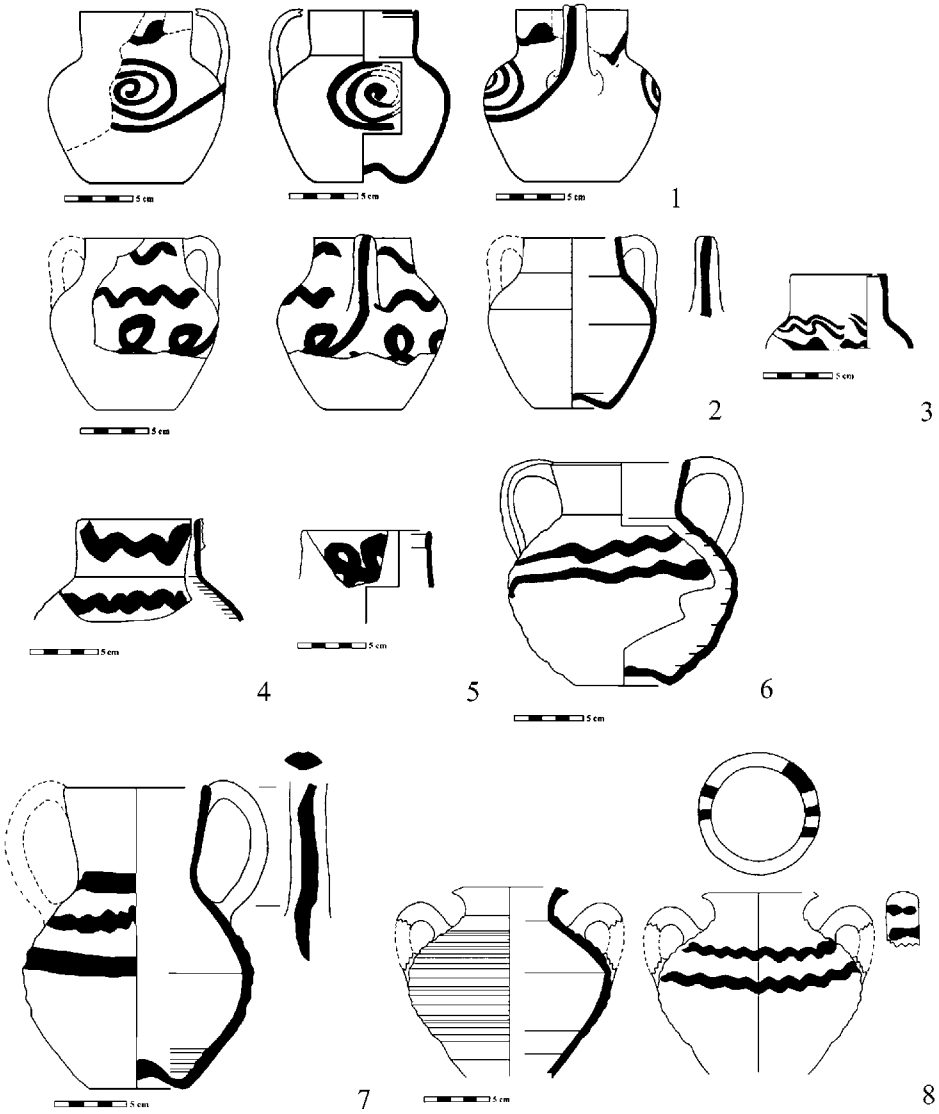


Figure 8.13. Very Small jars, 1) V601; 2) V669; 3) V635; Small Jars; 4) V636; 5) V637; 6) V638; 7) V622; 8) V1519.

Decoration

There is considerable variation in design on these very small jars. V601 (Q-1/a) is decorated with a wavy line on the neck and a line which begins at the top of the handle and runs down onto the body, where it turns and forms a spiral (Daviau and Beckman 2001:261; fig. 3:10),⁶⁶ whereas V669 (Q-1/b) has a wavy line on the neck, a second wavy line on the shoulder, and a line which begins at the top of the handle and runs down to the body,⁶⁷ where it turns and forms a row of loops. In contrast, V635 does not have a painted line on the neck; instead there are pairs of thin wavy lines on the shoulder.

Parallels

Pella: Although made of a different ceramic fabric and decorated with white paint instead of red, the Pella assemblage also contains examples of very small jars with a relatively wide mouth (McNicol et al. 1982: pl. 144:6). One example (CN 534) has a row of loops on the body (1982: pl. 138:2).

*Q-2. Small Jars**Q-2/a. Small Jars – Body Form in Doubt*

Criteria: Type Q-2 includes vessels that have a vertical neck and are slightly larger than the very small jars. Within this type are two painted examples; one vessel (V636), preserved from the rim to below the shoulder, is very slightly ribbed on the shoulder and has a light brown or ‘mauve’ paint, which is quite different from the weak red or light red paint on the neck of V637. The similarity of rim diameter and form suggests that in other respects these two jars were very much alike.

Catalogue

V636 (Fig. 8.13:4; D23:2/15.6). Rim D 9.0, rim 0.4 cm thick; light reddish brown (5YR 6/4) fabric, no core; very pale brown slip (10YR 7/4), light brown (7.5YR 6/3) paint; broken (Daviau and Beckmann 2001: fig. 3:12).

⁶⁶ Additional restoration subsequent to initial publication revealed more of the design on the handle.

⁶⁷ A vertical stripe is also present on isolated handles in the Tall Jawa corpus, on jugs (V685, V622), and on small jars or ‘amphorae’ at Umm al-Rasas (Alliata 1991: fig. 22:4, 5, 23).

V637 (Fig. 8.13:5; D12:5/13.7). Rim D 9.0 cm, rim thickness 0.45 cm thick; very pale brown (10YR 7/4) fabric, no core; pale yellow (2.5Y 8/3) slip, yellowish red (5YR 5/8) paint; rim sherd (Daviau and Beckmann 2001: fig. 3:13).

Decoration: There are two variants in this type, based on painted decoration. V636 (Variant Q-2/a-1) has a broad (1.3 cm) wavy line on the neck, and a second broad wavy line on the shoulder, whereas V637 (Variant Q-2/a-2) has a single row of loops on the neck.

Parallels

Amman: Small jars with variant painted styles are similar in body shape; they have either a simple rim or a cyma rim with a wavy line on the neck, a second wavy line on the shoulder, and handles with a painted line descending to the shoulder and inaugurating a series of loops lower on the body (Harding 1951: fig. 3:61=pl. IV:61), 62).

Umm al-Rasas: Simple, slightly thickened rims with a painted loop design may be represented by sherd R 3484 (Alliata 1991:2).

Q-3. Small Globular Jars

Q-3/a. Small Globular Jars with Ribbed Shoulder and Painted Decoration

Criteria: Type Q-3 consists of small jars with a simple rim, a vertical neck, handles attached at the rim and pulled down to the shoulder, and a ribbed body.⁶⁸ The ware is thin when compared to large jars, but is slightly thicker than vessels of Type Q-1. These vessels have a wide neck, and a globular or slightly piriform body. The most common painted design is a series of wavy lines running horizontally around the body.

Catalogue

V638 (Fig. 8.13:6; D23:2/15.2;). Rim D 9.0, rim thickness 0.6 cm; light reddish brown (2.5YR 7/4) fabric, with pink (5YR 7/4) core; no slip, weak red (10R 4/3) paint; partially restored (Daviau and Beckmann 2001: fig. 3:14).

⁶⁸ Vessels with these features are sometimes classed as 'kraters' (Humbert 2001: fig. 157; figs. 3–5). However, in this study, closed vessels with two handles are all assigned to the class of 'jars'.

Decoration: The dominant decorative motif is a single pair of painted wavy lines that runs across the shoulder, dipping down to end under the handle. The only distinction between V638 (Q-3/a) and V662 (Q-3/c, see below) is the presence on the latter of a bead ridge at the point where the shoulder changes direction.

Parallels

Jarash: Although close in size, the jars from the Umayyad Potters' Complex (Schaefer and Falkner 1986: fig. 12:1, 2) are not exact parallels. These jars have four thin wavy bands on the shoulder and horizontal painted stripes on the handles. The principal differences between the Tall Jawa vessels and those from Jarash are the composition of the clay and the decoration. Orange wares with white paint are the norm at Jarash (Ware C; Watson 1992:236; fig. 5:39), whereas very pale brown wares with red paint are the most common at Tall Jawa. Certain examples from Jarash appear to have a smooth body, free of ribbing, such as the Umayyad jar from the trapezoidal square (Brizzi *et al.* 2001: fig. 9).

Umm al-Rasas: This small jar from the abandonment phase has a wide neck, long handles, omphalos base, and a double pair of wavy lines (Alliata 1994a: fig. 112a).

Catalogue

V622 (Fig. 8.13:7; D23:3/15.11). Rim D 12.0, H 20.5 cm; very pale brown (10YR 8/3) fabric, reddish brown (5YR 5/4) paint; broken.

Description: Vessel 622 is an elegant jar with a unique painted design. There is paint on the exterior surface of the rim, although most of the rim is missing. At the base of the neck there is a broad horizontal band, with another one marking the widest part of the shoulder. Between these bands is a single wavy line, while on the handle, there is a single stripe running the full length and overlapping the top of the lower band.

Parallels

Amman: The single closest parallel is from the *palacio* on the 'Amman citadel (Olávarri-Goicoechea 1985: fig. 16:12).

Q-3/b. Small Piriform Jars

Piriform jars with a triangular flaring rim are similar in fabric and painted decoration to the simple rim jars, except for their short neck.

The fabric of this thin-walled vessel is relatively porous, in contrast to the hard ware of V622. No known parallels with this rim form and decoration can be cited.

Catalogue

V1519 (Fig. 8.13:8; D23/59.1). Rim D 7.0, body D 15.4, H 14.3+ cm; pink (7.5YR 7/3) fabric, very pale brown (10YR 7/3) exterior, reddish brown (2.5YR 4/3) paint; broken.

Q-4. Small Biconical Jars

Q-4/a. Small Biconical Jars with Ribbed Shoulder

Biconical jars are close in size to small globular jars, the principal difference being the elongated body and biconical or piriform shape and the lack of painted decoration. The most complete examples of this form are the gray-ware jars.

Q-4/a-1. Small Biconical Gray-Ware Jars with Ribbed Shoulder

Catalogue

V648 (Fig. 8.14:1; D22/25.2). Rim D 9.5, body D 16.5, H 16.0+ cm; dark gray (N 4/) fabric and surfaces; ribbed; base missing.

V687 (Fig. 8.14:2; D12/6.5). Rim D 9.8, body D 17.0, H 14.8+ cm; pink (7.5YR 7/3) fabric, pinkish gray (7.5YR 6/2) exterior; broken.

Description and Technology: Like other small jar forms, this vessel type is characterized by a wide neck, vertical simple rim, and two handles that spring from the rim to the shoulder. The shoulder is covered with horizontal combing above the carination. In the case of V648, the handles were attached after the vessel was combed and they are not perfectly vertical. The closest parallel is the gray ware cooking pot, V691.

Parallels

Jarash: A group of gray ware cooking pots recovered at the North Theatre are similar in shape (Clark *et al.* 1986: fig. 21:11–14).

Madaba: A biconical vessel with a relatively tall neck and ribbed shoulder is similar in form but different in fabric (Acconici and Gabrieli 1994: fig. 33:59).

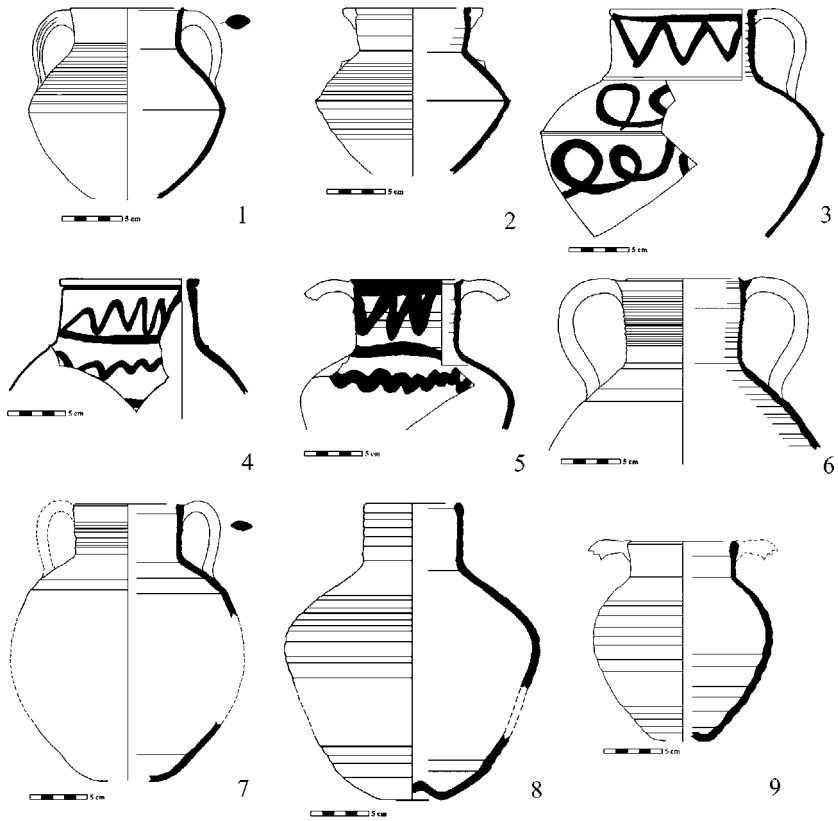


Figure 8.14. Small Jars, 1) V648; 2) V687; Medium Jars, 3) V640; 4) 641; 5) V621; 6) V698; 7) V690; 8) V688; 9) V1528.

R. MEDIUM JARS

Criteria: Vessels classified as medium size jars (Types R-1 and R-2) are considerably smaller than bag-shaped storejars or conical heavy-walled Gaza amphorae. At the same time, these vessels have a thickened rim and neck in relation to the height of the body. While few examples are preserved rim-to-base, enough of the body remains of V640 to show the approximate height of complete vessels (*ca.* 25.0 cm). Vessels in this type vary from one another in ware colour and texture, from smooth, light brown ware with heavy cream-coloured slip and red paint to grainy (metallic?), reddish yellow ware with pinkish gray paint. All have a slightly thickened, undercut rim, except for several vessels of Type R-2, whose triangular rims are offset from the vertical, with

a groove on the upper edge or lip. The base is most probably a tall ring base (Alliata 1987: fig. 7:37; 1994a: fig. 112), although no jars in the Tall Jawa corpus have been restored sufficiently to link the body with its base.

R-1. Medium Jars with Rounded Rim

Important features of Type R-1/a include a slightly thickened rim with a groove separating the rim from the neck, a collar at the base of the neck, and a beaded ridge at the point of carination on the bi-conical or piriform body.⁶⁹

Catalogue

V640 (Fig. 8.14:3; D32:24/40.7). Jar; rim D 12.0 cm, rim 0.8 cm thick; light red (2.5YR 7/6) fabric, with light greenish gray (5GY 7/1) core; very pale brown (10YR 8/2) slip, red (2.5 YR 5/6) paint; partially restored (Daviau and Beckmann 2001: fig. 4:16).

Decoration: A new pattern of diagonal lines, overlapping at the top, form a continuous V-shaped design on the neck of V640. The top of the rim (lip) is also painted; this design extends onto the top of the handle and becomes a vertical, wavy line running the length of the handle. A row of loops on the shoulder is matched by another row below the carination on the body.

Parallels

Capernaum: Two jars (*anfere*) from rooms 107–108 in Insula IV have the same rim form and biconical body shape as V640. Both jars have a loose wavy band around the neck and painted designs on the shoulder and body, although these vary from each other and from V640. One jar has concentric semi-circles with dots on the shoulder along with sprigs, and a wavy band on the body (Loffreda 1974: fig. 50:1), while the second jar has alternating wavy and straight bands on the shoulder and swirls and crossed lines on the body (1974: fig. 50:2). A complete vessel with a tall ring base, painted swirls and vertical wavy lines on the shoulder and body is a classic example of this type (Loffreda 1983: fig. 12:20=fig. 22).

⁶⁹ A good example of the beaded ridge appears in the Byzantine corpus from Hisbân (Sauer 1973: fig. 2:89).

Khirbat as-Samra: Although the painted decoration is somewhat different, the shape of the body and the beaded ridge at the change of direction of krater S1732 shows a similar tradition (Humbert 2001: fig. 4).

Pella: A medium jar with a wavy line on the neck, two wavy lines flanking a straight band on the shoulder, and a design of crossed lines and swirls on the body has the standard wide-necked form (McNicoll *et al.* 1982: pl. 143:1; Walmsley 1995: fig. 6:2). A second jar has a more complex design, which includes opposing swirls on the body.

Amman: Medium jars have the same thickened rim with paint on the lip and a groove separating the rim from the neck, an angular wavy line on the neck, a biconical shape, and a ring base. In the case of one jar (Harding 1951: fig. 3:39), the painted motif of swirls and crossed lines on the body is similar to what appears on large jars at Tall Jawa.

Madaba: A jar neck with a beaded rim (undercut with a groove) is painted with a red band and a wavy line (Acconci and Gabrieli 1994: fig. 46:9).

Umm al-Walid: A medium-size jar with a rounded/beaded rim (Bujard and Joguín 2001:141: fig. 3:16=Haldimann 1992: fig. 4b(?)) and collar at the base of the neck has the same bi-conical body shape⁷⁰ as V640, but not the same painted design. At the same time, the swirl and the floral design on the body appear on other vessel types at Tall Jawa, and the V-shaped design on the neck is similar to but more compressed than that on V640.

Umm al-Rasas: Although only the shoulder and mid-body is preserved, this jar also has a row of loops on the shoulder, above the ridge that marks the change of direction (Alliata 1991: fig. 23:17).

Catalogue

V641 (Fig. 8.14:4; D12:8/29.4). Rim D 11.8 cm, rim 1.0 cm thick; very pale brown–pink (10YR 8/3–2.5YR 8/3) fabric, no core; pale yellow (2.5Y 8/2) slip, red (2.5YR 5/6) paint; rim and neck only (Daviau and Beckmann 2001:268).⁷¹

Decoration: The painted design on V641 constitutes a variant (R-1/b) that includes a wavy line and one or more straight bands around the neck, as well as a wavy line(s) and a straight band on the shoulder.

⁷⁰ Bujard and Joguín (2001:141) describe the body shape as “piriform” rather than bi-conical; without the base, it is unclear which term is the more appropriate.

⁷¹ Minor changes were made to the colour codes used in the earlier publication.

Parallels

Pella: A close parallel is the jar rim and neck assigned to Ware P and dated to the early 8th century AD (Watson 1992: fig. 14:125).

Sa'ad: Pottery from the mosque includes bowls and jars with red painted designs on a white background. Closest in conception to V641 is a jar with a tight garland design on the neck and a series of wavy lines and straight bands on the shoulder (Rose and Burke 2004: fig. 2.25:13).

Umm al-Rasas: A completely restored *anforetta* illustrates both the painted design and the full body form of this class of jar. Of interest is the omphalos base surrounded by a tall ring base (Alliata 1987: fig. 7:37).

Catalogue

V642 (D12:4/10.6). Rim D 10.7 cm, rim 0.9 cm thick; pink (5YR 8/4) fabric, no core; pale yellow (2.5Y 8/2) slip, weak red (10R 5/4) paint; rim only (Daviau and Beckmann 2001:268).

Decoration: In Variant R-1/c, there is only a wavy line on the neck.

Parallels

Umm al-Rasas: The beaded rim (with a groove immediately below the slight swelling of the lip) is found in both the sherd material and the partially restored vessels (Alliata 1987: fig. 7:37; Alliata 1991: fig. 16:3).

*R-2. Medium Jars with Offset/Grooved Rim**R-2/a. Medium Jars with Offset Rim and Painted Design*

The tall neck supports a small everted or off-set rim which may have been designed to hold a cover.

Catalogue

V621 (Fig. 8.14:5; D23:3/20.6). Rim D 10.0 cm, rim 0.4 cm thick; reddish yellow (7.5YR 7/6) fabric, no core; very pale brown (10YR 8/3) slip, pinkish gray (7.5YR 6/2) paint; broken (Daviau and Beckmann 2001: fig. 4:17).

Decoration: There is a band of paint on the rim, straight bands and a wavy line on the neck, and a wavy line on shoulder.

Parallels

Amman: Two crisp-ware rim and neck sherds have a similar painted design with a painted band immediately below the rim and above the zig-zag on the neck (Koutsoukou and Najjar 1997: figs. 231, 269); the latter (269) has an everted rim similar to V621.

Umm al-Rasas: From Umm al-Rasas is an example of a jar with an offset or grooved rim (Alliata 1987: fig. 5:5).

R-2/b. Medium Jars with Grooved Rim, Grooved Neck, and Ribbed Body

Another example of a two-handled jar with a rim which may have held a cover is grooved and triangular in shape (V698). This jar is unpainted but grooved on the neck above the collar, and ribbed on the shoulder.

Catalogue

V698 (Fig. 8.14:6; D23:2/12.11). Rim D 11.2, neck H 7.6 cm; light red (2.5YR 7/8) fabric, light red (2.5YR 7/6) surface.

Parallels

Umm al-Rasas: Rim sherds with both handles preserved were recovered from the Church of Bishop Sergius (Alliata 1987:227: fig. 8:6).

R-3. Miscellaneous Plain Jars

In the corpus as a whole, there are a number of rims, handles and partially restorable jars in the small and medium size range. These include V645 (D22/6.8), V690 (Fig. 8.14:7), V688 (Fig. 8.14:8) and V1528 (Fig. 8.14:9).

S. LARGE JARS

Three groups of mendable body sherds and one rim (Type S-1) are evidence of large, bag-shaped jars with a very pale brown or pale yellow slip and red to reddish brown paint.⁷² Complete examples of the rim and neck make it clear that the handles were attached to the

⁷² S-1/a=variant a, S-1/b=variant b, S-1/c=variant c (Daviau and Beckmann 2001:268).

body. At the base of the neck there is a collar; in the case of certain painted jars, the painted decoration on the neck overlaps the collar. Several groups of body sherds are each of a different ware, but all share the same decorative motifs of swirls and sprigs. These large jars have parallels at Umm er-Rasas, Jarash, and Pella.

Type S-1/a: Tall Collared-Neck Jars

Large jars have a vertical neck and a slightly thickened or squared rim. Both the rim and neck are decorated. In most instances, the neck of the large jars is narrower than that of the medium jars, which tend to be relatively wide.

Catalogue

V644 (Fig. 8.15:1; D22:19/25.1). Jar neck and body sherds; rim D 10.4 cm, neck H 6.5 cm; pink (7.5YR 8/4) fabric, no core; very pale brown (10YR 8/3) exterior slip, red (2.5YR 4/6) paint, painted band on lip, zigzag lines on neck (Daviau and Beckmann 2001:268; fig. 4:18).⁷³

Parallels

Capernaum: A jar rim with a light slip and weak red paint may have been part of a jar with a sprig and wavy line design (Tzaferis 1989: pl. 6c, d).

Khirbat Karak: A jar neck with a thickened rim and collar at the base of the neck is decorated with a garland pattern (Delougaz and Haines 1960: pl. 58:4). Jar necks with zig-zag and loop designs are also present in the assemblage (1960: pl. 37:1, 2).

Abila: Only one example of a tall jar (rim+neck) with white slip and a red painted wavy line is published from the 1986 season (Mare *et al.* 1987: fig. 13:6).

Qasr al-Hallabat: The neck and rim of a storejar from House 1 was formed of pink fabric covered with a very pale brown slip and a weak red painted wavy line and band on the neck (Ghrayib 2003: fig. 10q).

Amman: Two rim and neck sherds from the Great Temple have paint on the rim and a vertical zig-zag pattern on the neck; the pre-747

⁷³ In the original publication, it was supposed that there were two different vessels; further study now confirms that these belong to a single jar.

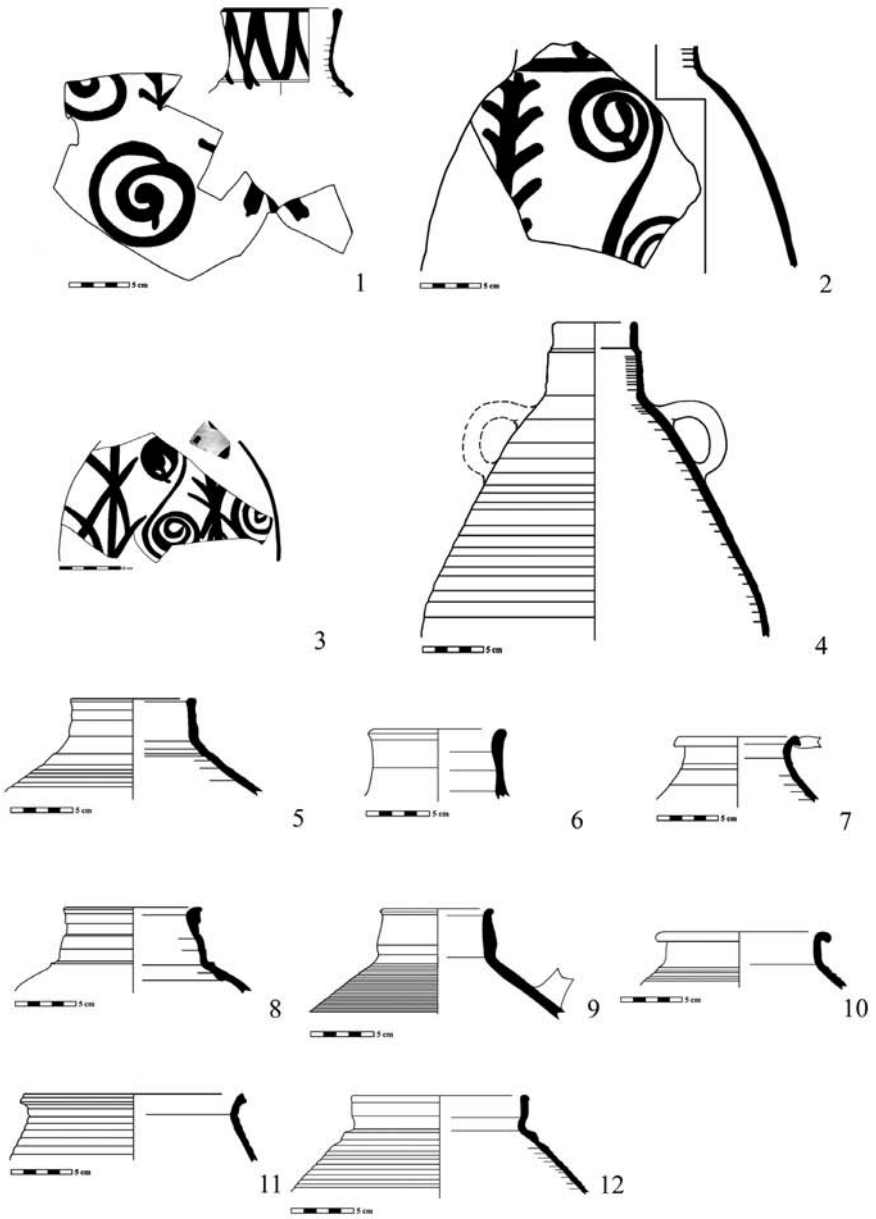


Figure 8.15. Large Jars, 1) V644; 2) V646; 3) V623; 4) V692; 5) V1513; 6) D33/26.1; 7) V1512; 8) V671; 9) V672; 10) D31/46.14; 11) D31/33.2; 12) D31/47.7.

sherd (270) is identical to the Tall Jawa design, whereas the sherd from the post-747 remains (348) has a painted motif that is similar but not identical to the earlier pots (Koutsoukou and Najjar 1997: figs. 270, 348).

Siyāgha (Mount Nebo): A complete jar with the crossed zig-zag design on the neck and the spiral and sprig decoration on the body (Schneider 1950: fig. 2:4) is a good example of the collared-neck jar. That this red-painted design on a creamy white slip was relatively common can be seen from the number of body sherds with the same motifs (Schneider 1950: pls. 147:4, 5, 12, 21, 22; 148:2).

Madaba: The simple rim with a red painted V-design on a light slip appears in the loci associated with an Umayyad house (Acconci and Gabrieli 1994: fig. 45:4).

Umm al-Rasas: Jars from Umm al-Rasas (Alliata 1987: fig. 5:4; Alliata 1991: figs. 12:3; 15:1, 2) are similar to the Tall Jawa jars in form and decoration, although their fabrics, as well as the fabrics of the pots from Umm al-Walid, are more porous than the well levigated and hard fabric of the Tall Jawa jars.⁷⁴

S-1/b. Baggy Jars

Catalogue

V646 (Fig. 8.15:2; D12:12/24.2). Body sherd; light gray (10YR 7/2) fabric, no core; exterior, pale yellow (2.5Y 8/2) slip, reddish brown (2.5YR 4/4) to dark reddish brown (2.5YR 3/4) paint, band on neck, swirls and sprig (Daviau and Beckmann 2001: fig. 4:19).

Parallels

Umm al-Rasas: This painted design of swirls and sprigs seems to extend to the south as far as Umm al-Rasas (Alliata 1991: fig. 15:1), and appears to be present at Pella as well (Walmsley 1995: fig. 6:6).

Catalogue

V623 (Fig. 8.15:3; D23/23.12). Body sherds; light reddish brown (2.5YR 7/4) fabric, yellow (10YR 7/6) core; exterior, very pale brown (10YR 8/2) slip, weak red (10R 4/3) paint, swirls and bisecting lines (Daviau and Beckmann 2001:268).

⁷⁴ I am grateful to Michele Piccirillo, o.f.m, for allowing me to examine certain of these vessels in the Mount Nebo storerooms (July, 2006).

Parallels

Khirbat Karak: Painted sherds with a large dark red swirl on a light coloured background represents the same decorative motif (Delougaz and Haines 1960: pl. 37:11, 12).

Khirbat al-Samra: One completely restored(?) baggy jar is very close in style and painted decoration to V623, especially in the design of opposing swirls alternating with bisecting lines (Humbert 2001: fig. 9; see also fig. 1).

Jarash: Although the large jar form with red paint on white slip (Ware D) is rare in the North Theatre at Jarash (Clark *et al.* 1986:251), there is one jar in this class (fig. 21:17) with a painted decoration of intersecting lines.

Amman: This baggy jar with a profiled rim, neck collar, and swirl and crossed line motif is seen in the domestic corpus from the Citadel (Harding 1951: fig. 3:65).

Tall Madaba: The same repertoire of designs is present on a biconical medium-size jar of red ware with red painted decoration (Foran *et al.* 2004: fig. 10:15).

Umm al-Rasas: A nearly complete jar, with a simple vertical rim, baggy body, and omphalos base is the best example of this jar form and painted design (Alliata 1991: fig. 15:1).

S-1/c. Unpainted Baggy Jar

Only one jar (V692) with a folded rim, narrow neck and handles on the shoulder can be included among the baggy jars. The rim is slightly inset from the neck, a unique feature at Tall Jawa. The body is very slightly ribbed.

Catalogue

V692 (Fig. 8.15:4; D33/48.10). Rim D 6.5 cm; light reddish brown (2.5YR 6/4) fabric, pink (5YR 7/3) exterior; broken.

Parallels

Amman: A folded rim, described as thickened, has a groove below the rim and a slightly inverted stance (Olávarri-Goicoechea 1985: fig. 18:3), but otherwise is a close parallel.

S-2. Unpainted Jars

The number of unpainted, utilitarian storejars is small when compared to the painted jars. Four vessels from Room 604 in the southeast corner of Building 600 are the best examples.

S-2/a. Simple Rim Jars

Sherds representing the rim and neck of Vessel 1513 provide little evidence for forming techniques. The rim and the inward leaning neck of this jar could have been formed without folding the clay, although the rim is very slightly thickened; on one side, the rim was flattened on the lip. Residual clay marks the position of a handle that was attached to the rim and pulled to the shoulder. White slip is preserved on one side of the jar.⁷⁵

Catalogue

V1513 (Fig. 8.15:5; D31/38.3). Rim D *ca.* 10.5, neck H 3.1 cm; light red (2.5YR 7/6) fabric, very pale brown (10YR 8/2) exterior; sherds.

D33/26.1 (Fig. 8.15:6). Rim D 10.5 cm; light red (2.5YR 6/8) fabric, light red (2.5YR 6/8) exterior; sherds.

Parallels

Khirbat Abu Suwwana: Jars typically have handles on the shoulder, comparable to other sites in the late Byzantine-early Islamic period (see bag-shaped jars below), whereas jugs often have a simple rim and a handle that begins at the rim and extends to the shoulder (Finkelstein 1997:19*; figs. 5:11, 12; 4:1, 6, 7).

Nuṣayb Uweishira: In the assemblage from the monastery is a simple rim jar with a collar ridge at the base of the neck (Netzer and Birger 1990:199; fig. 1).

Khirbat al-Mafjar: Although not described among the jar forms by Baramki (1944:66), one vessel (fig. 4:10) does have the same inward leaning neck and a handle springing from the rim.

Pella: Although only a few rim sherds serve as formal parallels, this is clearly a form that dates to the 7th–8th century (for example, Watson 1992:238; fig. 9:70). The form also appears on cooking jars, although in an entirely different fabric (Watson 1992: figs. 2:19; 3:20).

S-2/b. Triangular-Rim Storejars

Jars with a triangular rim are present in a crisp fabric. Two forms of rim are represented, an everted triangular or overhanging rim (V1512), similar in shape to strainer jug V1511, and a folded, grooved rim (V671). Unfortunately, the full body shape of these jars is unknown, and formal parallels are rarely complete.

⁷⁵ Baramki (1944:66) also notes the variation in colour from one side of a jar to the other.

S-2/b-1. Triangular Overhanging-Rim Storejars

V1512 (Fig. 8.15:7; D31/37.12). Rim D 10.5, neck H 4.0 cm; pink (5YR 7/4) fabric, pink (7.5YR 7/3) exterior; broken.

Parallels

Kefar Barukh: Pottery from the weight pit of the olive pressing installation included storage jars, one with a triangular rim and a neck ridge or collar (Syon 2004: fig. 10:5).

Tall Nimrin: An earlier version of this form appears with a thinner and shorter everted rim (Flanagan *et al.* 1994: fig. 18:9).

Siyâgha (Mount Nebo): This rim form appears in the sherd material from the chapel of the Theotokos (Bagatti 1985: fig. 6), as well as from the Monastery of Prokapis and the crypt area (Piccirillo and Alliata 1990: figs. 1:17 (a jug); 7:12, amphoretta).

Umm al-Rasas: Several styles of triangular rim hanging from a flaring neck are represented in the sherd material (Alliata 1991: 10:2–4).

S-2/b-2. Folded Grooved-Rim Storejars

The variant of the triangular-rim jars is a folded rim pot with a collar at the base of the neck and a flattened mid-neck ridge, such as V671. An alternate form has a deep, flat groove between the rim and the broad neck ridge (V1523, see DVD). In some instances the neck is slightly thickened, rather than having an actual ridge.

Catalogue

V671 (Fig. 8.15:8; D31/35.4). Rim D 12.0, neck H 4.2 cm; reddish yellow (5YR 6/6) fabric, very pale brown (10YR 8/3) slip; broken.

Parallels

Jerusalem: Two jar rims (Mazar and Mazar 1989: pl. 13:34, 35) from locus 86/7 are similar, though not identical, to the jars from B600.

Pella: A jar from Phase V (600–660 AD; Watson 1992: fig. 4:31) is the closest known parallel for this form.

Siyâgha (Mount Nebo): Rim and neck fragments comparable to V671 were found in the north room of the church (Bagatti 1985: fig. 12:19; 13:3, 4).

*S-2/c. Jars with Combed Decoration**S-2/c. Red-Ware Jars with Combed Decoration*

Criteria: A single vessel falls into this type; V672 is a red-ware jar with a thickened neck and a thinned lip that is tightly everted (cyma). The entire shoulder is combed, beginning at the base of the neck. A crooked handle extends from the lip of the rim to the shoulder. The fabric is softer than that of the crisp-ware jars and the interior is fractured without clean breaks.

Catalogue

V672 (Fig. 8.15.9; D31:21/44.2). Rim D 9.0, neck H 3.3 cm; light red (2.5YR 7/8) fabric, pink (2.5YR 7/4) ext; broken.

Parallels

Khirbet ed-Deir: Finely ribbed jars with a thickened neck are found in the corpus from the monastery, both in the church and the refectory (Calderon 1999: pl. 1:1–3), although here again, the handles spring from the shoulder.

S-2/c. Everted Rim and Wide Mouth Jars

A number of sherds with everted grooved rims or pendant rims reflect late Byzantine forms. None of these vessels were sufficiently well preserved to determine the shape of the body. These include sherd D31/46.14 (Fig. 8.15:10), D13/33.2 (Fig. 8.15:11) and vertical folded rim jar D31/47.7 (Fig. 8.15:12).

Parallels

Siyâgha (Mount Nebo): Several jars/cooking pots are similar in rim and upper body shape to D31/46.14 (Bagatti 1985: figs. 4:11; 6:8; 11:2). The closest parallel for D31/33.2 also comes from Mount Nebo (Bagatti 1985: fig. 12:2). A jar with a vertical rim, a collar at the base of the neck, and ribbing on the shoulder was recovered between two mosaics in the nave (Bagatti 1985: fig. 3:12) and serves as a good parallel for D31/47.7.

Madaba: A number of wide-mouth vessels with everted rim similar to D31/46.14 were found in House A (Acconci and Gabrieli 1994: fig. 22:24, 25).

S-2/d. Jars with Wavy Combed Decoration

Less than a handful of body sherds represent storejars decorated with straight combed bands alternating with combed wavy lines. Due to this limited representation (for example, sherd D23/18.12), the form of the rim and of the body itself cannot be identified. Examination of the interior surface makes it clear that this was a wheel-made vessel and should not be confused with the hand-made basins in the corpus (see also, Piccirillo and Alliata 1990: fig. 2:32).

*S-3. Gray-Ware Ribbed Jars**S-3/a. Large Gray-Ware Ribbed Jars*

Criteria, Technology, Function: The common bag-shaped storage jars⁷⁶ with a ribbed body and two handles⁷⁷ on the shoulders do not appear at Tall Jawa. Instead, there is one fine example of a ribbed gray-ware jar, which has two handles which spring from the rim to the shoulder. The body is relatively globular and the clay is hard-fired, a technique which results in an extremely crisp ware. The ribbing is flattened, rather than rounded, and begins immediately below the neck. A second jar, in the same class, is less well preserved; only the rim, neck to shoulder, and a few body sherds are represented.

Catalogue

V602 (Fig. 8.16:1; D12/7.4). Ribbed jar; rim D 16.0, rim+neck H 3.9, body D 38.0 cm; gray (2.5Y 5/1) fabric, partially restored.

⁷⁶ These jars are frequently made with a red fabric, gray exterior surface and white painted decoration, such as those at Khirbat al-Karak (Delougaz and Haines 1960: pl. 35:1–3, 5).

⁷⁷ Bag-shaped jars are present in Late Byzantine contexts at Jarash (Clark 1986: pl. XIII:26, for example), Pella (Smith *et al.* 1992:139; pl. 92:4), and in the monastery at Tel Ira in the Negev (Fischer and Tal 1999a: figs. 6.118:1–6; 138:8–13, 15). These vessels are identified as Class 46 (Palestinian) by Peacock and Williams (1986:191; fig. 110). In the Umayyad–Abbasid periods, gray/brown bag-shaped jars, decorated with white paint, make their appearance at Pella (Walmsley 1995: fig. 7:8–10). Only a small number of gray sherd with white paint (D32/36.6) was recovered from B600 at Tall Jawa.

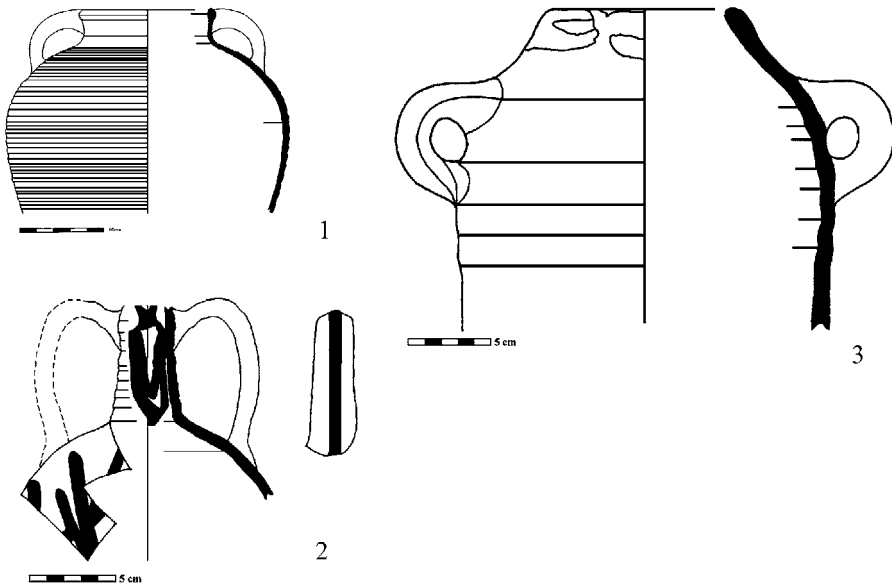


Figure 8.16. Jars and Amphorae, 1) V602; 2) V603; 3) V685.

Parallels

Jars with handles attached to the rim are rare in contemporary assemblages. Fisher and McCown did note in the sherd material from Jarash two styles of ribbing, “broad, flat topped” and “shallow, round” ribs (1931:21).

Pella: One example of a red ware jar with a 15.0 cm rim diameter and handles springing from the rim was present in the final Byzantine phase at Pella (Phase V collapse; Smith *et al.* 1992:180; pl. 116:4).

T. AMPHORAE

T-1. Gaza Amphorae

Only the upper part of a single ‘Gaza’ amphora is represented in the ceramic corpus. This vessel type, found at sites throughout Palestine and at certain sites in Transjordan, is well represented at numerous sites throughout the Mediterranean world and in Europe (Johnson and Stager 1995: fig. 6.8). Major production centres in western Palestine seem to have been located in the region of Gaza (Johnson and Stager

1995:99–100), in the neighbourhood of Ashkelon, where kilns have been discovered (Stager 1991:48–49). So too, jars were uncovered in a kiln near Giv'ati Junction (Baumgarten 2001:323).⁷⁸

Criteria: The Gaza amphora is easily recognizable given its heavy fabric, tall cylindrical body, short neck (or continuous shoulder from rim to handles), two vertical loop handles, simple thickened rim, and residual clay on the exterior below the rim. This vessel type has been identified as Roman Amphora Class 49 (Peacock and Williams 1986:198–199), Type 1 at Tell el-Far'ah (S) (Tubb 1986: figs. 1–2), and Type A at Deir el-Balah (Mayerson 1992: figs. 1, 3; Killebrew, forthcoming).

Technology: The Gaza amphorae were formed in two stages, with the upper body being thrown first. After the handles were attached, the vessel was inverted, placed in a chuck, and the lower body and base were formed. A residue of clay, probably from the chuck used to support the neck of the amphora during formation, encircles the neck.⁷⁹ The evidence that this clay is not the remains of a stopper consists of the fact that it was fired at the same time as the jar itself (Johnson and Stager 1995:99; Calderon 2000b:122).⁸⁰ Below the handles, there is a section of grooves or ribbing on the upper body, which appear in several examples to be the impression of a cord wrapped around the pot, possibly at the point where the upper and lower parts of the pot were joined. A second series of grooves appears just above the base. In certain examples, there is evidence that the interior was coated with pitch or resin (Calderon 2000b:122), although this is not known in the case of the Tall Jawa jar, since the lower body was not recovered.

Function: Gaza amphorae were transport vessels used to ship wine and other food stuffs, such as sesame oil, wheat, and fish products across the Byzantine world (Peacock and Williams 1986:199; Blakely 1988:38; Mayerson 1992:79).

⁷⁸ Baumgarten (2001:323) claims that these jars have been “mistakenly referred to... as ‘Gaza jars’”.

⁷⁹ Blakely (1988:35) points out that this vessel form does not have a proper neck. Instead the shoulder extends right up to the rim. In his 1988 report, Blakely discusses Gaza amphora sherds in a single category (Class 48/49) although Class 49 vessels can often be distinguished by the slope of the shoulder (for example, Blakely 1988: fig. 6:1).

⁸⁰ Tubb (1986:55) suggests that this extra clay serves as a means of keeping a stopper from slipping off of the sloping neck. While this is a possible explanation, I would assume that the stopper was held in place by cord or some other element which passed over the stopper and was attached to the handles.

Catalogue

V603 (Fig. 8.16:2; D12:4/10.1). Rim D 11.0, body D 22.6 cm; reddish yellow (5YR 6/6) fabric; broken.

Description: This single example from Tall Jawa is a Class 49 amphora, tall and conical with a simple rim that continues the line of the shoulder.

Parallels

Beirut: Among the Late Byzantine period ceramic vessels associated with the large corpus of glass shards from the Beirut glass workshop is the upper portion of a Gaza amphora with a simple rim (Foy 2000: fig. 31:7).

Ramat Ha-Nadiv: A number of Gaza amphorae with rounded and with flattened rims were recovered from the 6th–early 7th century villa and in the pottery pit at Ḥorvat ‘Aqav. These vessels were apparently discarded in the pit during the early 7th century (Calderon 2000b:119).

Caesarea Maritima: Several styles of Gaza amphora are included in Peacock and Williams’ Class 48/49 (1986), although from Caesarea only one jar with sloping shoulders (C.20.20064, #109:1; Blakely 1988: fig. 6:1) is similar in shape to V603.

Khirbet Baraqa: Types A, B and C amphorae were associated with the pottery workshop of Stratum IV, which is dated to the 6th–7th century BC; late Byzantine–early Islamic period (Gadot and Tepper 2003:148).

Giv’ati Junction: A perfect example of the conical shaped ‘Gaza’ amphora was located inside a kiln (Baumgarten 2001: fig. 3).

Ashdod: The typical elongated jar with grooves on the upper body near the base of the handles is present in the Byzantine period assemblage from Area A (Dothan and Freedman 1967: fig. 14:1).

Ashkelon: The jar form designated as Ashkelon Type A (Johnson and Stager 1995: fig. 6.1A) is the torpedo shaped, tall cylindrical jar most commonly called the Gaza Amphora.

‘Ard el-Mihjar: The assemblage of more than 70 Type A amphorae from a storeroom located at ‘Ard el-Mihjar south of Ashkelon is a major collection of this type. The coin evidence puts the collection in the late 6th–early 7th century AD (Fabian and Goren 2001:213–216, 218; figs. 3, 4).

Deir al-Balah: Killebrew’s Type A represents tall, cylindrical jars with one or more rim forms (Mayerson 1992: fig. 1, at left).

Gaza (Blakhiyah): Among the storejars were jars from North Africa, Syria, and Gaza itself, including tall Gaza style amphorae (Ballet 2000:76, left).

Tell el-Far'ah (South): Among the vessels recovered from a well at Tell el-Far'ah (S), the Gaza amphorae have a variety of rim forms; the closest parallel to V603 appears to be a vessel with a simple thickened rim (Tubb 1986: fig. 2:3). Not surprisingly, the Gaza amphorae were in association with bag-shaped jars with handles on the shoulder (Tubb 1986: figs. 3–5), a typical late Byzantine form not found at Tall Jawa.

Tel Ira: Gaza amphorae with a simple rim were found in Area L and Area M (Fischer and Tal 1999a: figs. 6.147:11; 6.150:3), as well as in the structure at Har Bariyah (Fischer and Tal 1999b: fig. 6.152:18).

Ramat Raḥel: A complete amphora with a simple rim was recovered from under the floor of Room 320, which adjoins the Byzantine monastery (Aharoni 1964: fig. 24:9).

Pella: Examples of Gaza amphorae were recovered from more than one Byzantine level. Of special interest are the eight vessels found in destruction debris dating to the mid-7th century (Watson 1992:239–240; fig. 10:76).

Jarash: In *taberna* 7, a typical example of a Gaza amphora was recovered amid pottery dating to the late 6th–early 7th century (Uscatescu 2001:61–62; fig. 3:2), while another simple rim Gaza amphora of the same late Byzantine period was located in the Macellum (Uscatescu 1996:174; fig. 95:628).

Deir Abu Mghar: Similar to the situation at Tall Jawa, only one Gaza amphora is represented in the South Sinai repertoire (Calderon 2000a: figs. 1:4=15:1).

T-2. Conical Amphorae

A second type of vessel with a tall narrow neck, twin handles, and a conical body is also included among the amphorae.⁸¹ The best example is only preserved from the rim to the shoulder, but many of the major features of this vessel type are present.

⁸¹ Flasks were also common in the late Byzantine period, although most appear to have had handles on the shoulder (Delougaz and Haines 1960: pl. 57:5, 6), rather than on the rim and shoulder as is the case with jars and amphorae.

Catalogue

V685 (Fig. 8.16:3; D23/13.13). Narrow-necked amphora; D of neck 2.0 cm; pinkish gray (7.5YR 7/2) fabric, very pale brown (10YR 8/2) slip on exterior, with weak red (10R 4/3) paint; broken.

Description and Condition: Only the neck, handle, and a portion of the shoulder were recovered. The conical neck flares somewhat from top to bottom (2.0–3.2 cm), is ribbed along its length, and has one ridge. Two loop handles spring from the neck ridge and hang straight down to the shoulder. There is a distinct change of direction at the base of the neck that continues into the rounded shoulder. The neck is decorated with red painted pendants loops, whereas a sprig design spreads across the shoulder up to the base of the neck. A single painted line marks the centre of each handle.

Although the overall body shape cannot be reconstructed, the closest parallel, a Byzantine period amphora from Pella, suggests that V685 was a long conical vessel. The interior surface is pock-marked, indicative of the effect of an acidic liquid.

Parallels

Beth Shean: One example of a tall-necked amphora with similar red-painted design was present in the Byzantine corpus (Johnson 2006: fig. 15.12:258).

Pella: A close parallel with ‘buff’ exterior and red painted decoration was assigned to Byzantine level IIIb (mid-late 6th cent. AD) at Pella (Smith *et al.* 1992:177; pl. 112:5).

U. SMALL UTILITARIAN CONTAINERS

Only two vessels fall into the class of small utilitarian containers. These vessels are hand-built, thick-walled, straight-sided ‘bowls’ or small basins with a flat base and squared rim. One example (V677) is of the same sandy clay fabric as many other pots that fire a very pale brown colour, while the second example is less well made, and extremely porous. The precise function of these vessels is unknown.

Catalogue

V677 (Fig. 8.17:1; D31/37.1). Rim to base; rim D 30.0, H 14.3 cm; very pale brown (10YR 7/3) fabric, very pale brown (10YR 8/2) slip(?); broken.

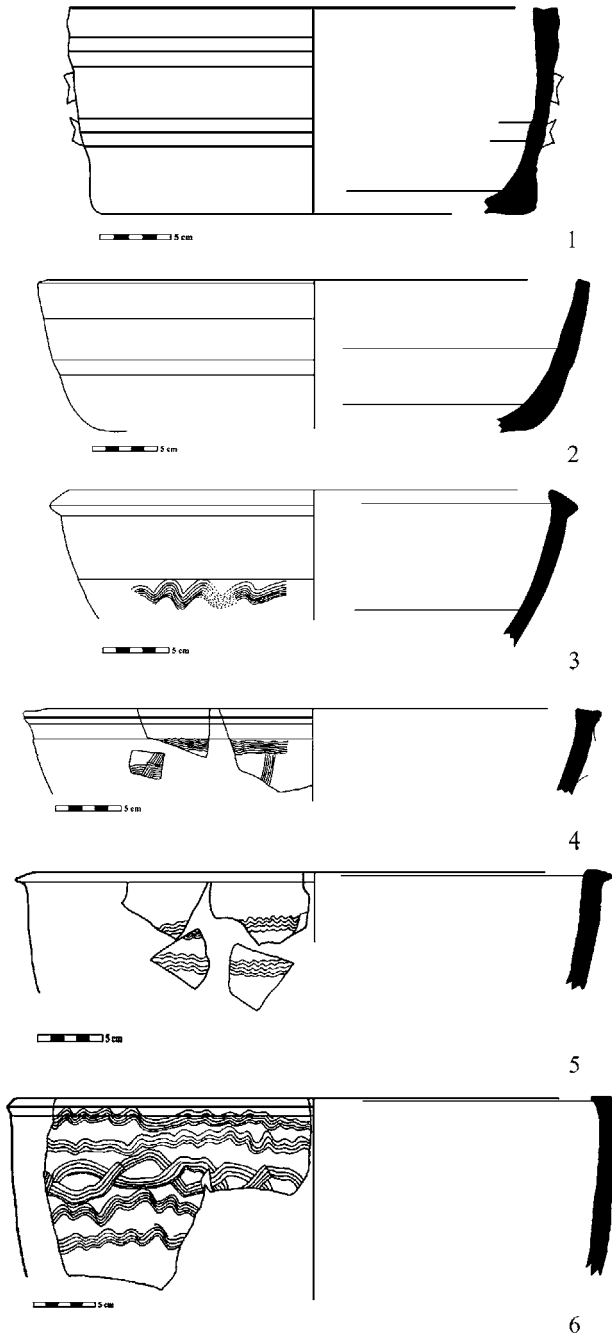


Figure 8.17. Small Basins, 1) V677; 2) V678; Large Basins, 3) V1503; 4) V1509; 5) V1506; 6) V1502.

V678 (Fig. 8.17:2; D33/21/4). Rim to base; rim D 43.0 (warped), H 9.8 cm; light red (2.5YR 6/6) fabric, soot-stained int; broken.

Parallels

Siyâgha (Mount Nebo): Small, undecorated basins with two handles (Schneider 1950: fig. 7:5, 6) appear along with the larger decorated types.

Umm al-Rasas: A thick-walled, hand-made shallow basin can be assigned to this category (Alliata 1991: fig. 22:31).

V. BASINS

Large basins in unglazed utilitarian ware are dated by Schneider (1950:80–81) to the period from the late 6th century to the middle of the 7th century, based on their discovery at Christian sites, such as Mount Nebo. In more recent excavations, it has become clear that these basins had a much longer period of production and use, continuing until the end of the 11th century AD. This late date is reported for the Euphrates valley site of Qal'at Ja'bar by Tonghini (1998:64; figs. 110–116), who describes the function of these basins as “storage and transport (large pots especially), but also for food preparation”.

Criteria: Basins are large heavy-walled, hand-made containers with a thickened rim, nearly vertical or diagonal sides, handles attached to the body, and a flat base. In a study of 23 rim sherds from Tall Jawa, the rim diameter is in the range of 30.0–59.0 cm,⁸² although in certain instances these basins may have been oval, rather than round, in shape. Decoration on the body is frequent (20 out of 25 rims and lower body fragments), usually consisting of a wavy combed pattern, entwined lines (chain motif), or both patterns one above the other. The decoration ends on either side of the two heavy loop handles which are attached to the body. The rim is either convex (rounded), or slightly flattened, or is decorated with a pie-crust pattern of finger depressions.

The basins from Tall Jawa appear to be relatively shallow, *ca.* 15.0–20.0 cm in depth. Related forms, often described as large deep bowls (Herr 2003:94), are more conical in shape and may have a

⁸² Data is from student research by Jason Holden in 2004.

depth of *ca.* 20.0–27.0 cm. While a large number of such basins and deep bowls were found at Aqaba, they are distinctive in their style of combed decoration and their fabric, which Whitcomb (1989:269; fig. 2) describes as cream ware or Mahesh ware.

Technology: The base is formed of a thick, flat slab of clay on which the side walls are built up. The walls themselves were smoothed on the exterior surface, but retain the marks of the potter's fingers on the interior surface. The rim was carefully finished, smoothed, and was either left undecorated or pinched in a pie-crust pattern.

Function: The specific function of such large containers is not certain. The fact that they were recovered from domestic structures may support Tonghini's understanding of them (1998:64) as storage or food preparation vessels. However, such basins are also found in churches (Clark 1986:317), and in rooms adjoining churches (Schneider 1950:81). At Tall Jawa, there are rooms in Building 600 dedicated to food preparation, as well as rooms that include raw materials, such as bitumen and sulphur, minerals which are related to crafts or industrial usage. The large size of the basins with their wide open mouths militates against Tonghini's interpretation of these containers as transport vessels.

V-1. Plain Triangular Rim Basins

Basins with an undecorated thickened (triangular) rim are present in both gray ware and a fabric that fires red.

V-1/a. Gray Ware Basins

Catalogue

V1503 (Fig. 8.17:3; D23/11.3). Interior rim D 33.0 cm; gray (N5/) fabric, reddish gray (2.5YR 6/1) core, very pale brown (10YR 8/2) slip; combed wavy band; broken.

Description: Vessel 1503 has a simple decoration of a single combed wavy band. The teeth of the comb were uneven with the result that the upper edge of the band was formed with the incision of two thick teeth while the lower part was incised with five very fine teeth.

Parallels

Buṣṭā: One elaborately decorated gray basin with a triangular rim, combed wavy bands and rouletted/impressed wedge decoration was recovered from the Umayyad house and compared to parallels at Jarash (Wilson and Sa'd 1984:42, 78; fig. 532).

Beth Shean: Two basins with a thickened triangular rim assigned to the early Islamic period are close parallels for those at Tall Jawa (Johnson 2006: fig. 15.14:277, 278).

Tel Jezreel: Having a wide distribution, the large hand-made 'bowl' with triangular rim and chiselled V-shaped decoration is similar in conception to the basins produced at Jarash (Grey 1994:56–66; fig. 8:1).

Jerusalem: Pottery in fills against the early Islamic tower on the Citadel included an example of a conical basin with a thickened rim and one incised wavy line (Geva 1983: fig. 5:10).

Pella: Among the dark gray (Ware D) vessels from Pella is a basin with a convex triangular rim. The outer wall of this basin is decorated with two bands of combed wavy lines alternating with chiselled zig-zag bands (Watson 1992:237; fig. 6:48). Also among the gray wares are a shallow basin and a relatively large bowl which are each decorated with two bands of wavy lines (McNicoll *et al.* 1982: pls. 145:6; 148:5).

Jarash: A gray ware sherd from the Sanctuary of Zeus with an externally thickened triangular rim (C. 1751; Rasson and Seigne 1989: fig. 5.7) is dated to the early 8th century AD, as is a partially restored basin with incised wavy lines from the Church of Bishop Isaiah (Clark 1986: pl. XII:23). Another example of a gray ware basin, this one with a rim diameter of *ca.* 37.0 cm and two bands of combed wavy lines, was found in Cistern 1 by the American expedition (Fisher and McCown 1931: pl. 13:x20). Eighteen different rim forms are identified by Schaefer and Falkner (1986:427) in the assemblage from the potters' work area in the North Theatre, where a reduction kiln was situated. This group is especially important as it indicates a regional tradition which appears to have more affinity with finds from Pella than with Tall Jawa, although the combed wavy line decoration appears to be ubiquitous. Other examples from the Macellum also have combed wavy bands on the exterior body (Uscatescu 1996: fig. 110:779–781).

Qasr al-Hallabat: Although the combing is not illustrated, this gray ware basin with a thickened rim and rounded lip (Ghrayib 2003: fig. 10a) is a good parallel to V1503.

Dhibân: Only one sherd with an externally thickened, triangular rim and a five-toothed comb wavy line decoration was reported by Winnett (1964: pl. 15:17); on this sherd, the single wavy band is shown on the right.

V-1/b. Basins with Gray Slip

Although somewhat different in form from the gray ware basins, one vessel with a gray slip has a unique combed pattern. This pattern consists of very fine six-toothed horizontal combing that is gently waved. This broad band is underlain by vertical or slightly diagonal combed lines which appear to be a garland or a combed chain hanging from the upper band.

Catalogue

V1509 (Fig. 8.17:4; D2.23.1). Int rim D 45.0+ cm; light red (2.5YR 6/6) fabric, light gray (2.5YR 7/2) slip; sherds.

A second basin has an everted rim, but the same fine combing; in this case, there are only parallel wavy bands.

Catalogue

V1506 (Fig. 8.17:5; D12/10.8) D 42.5 cm; light red (2.5YR 6/8) fabric, very pale brown (10YR 8/3) exterior surface; combed; sherds.

Description: Vessel 1506 consists of several groups of sherds (rim+body+base), some of which mend and others that share numerous features in common, including the same size and technique of combed decoration.⁸³

Parallels

Capernaum: Although more ornate, there is one basin with the combination pattern; diagonal stripes are located below a band of tight wavy combing that is itself immediately below the rim (Loffreda 1970: fig. 10:5).

V-2. Red Ware Basins

Basins with a plain (unpinched) rim occur in three forms; a flattened, rectangular rim, either thickened (V1502, 1509) or extending beyond the outer wall (V1506), a rounded, everted rim (V1508), and a slightly incurving, bevelled rim (V1504). The remainder of red ware rim sherds are pinched on the outer edge in a pie-crust style. Of these types, only the bevelled rim sherds in the Tall Jawa collection appear to come from plain vessels with no sign of incised comb decoration,

⁸³ Other common features include fabric composition (inclusions), fabric colour and thickness, as well as the colour of the slip.

even though these sherds are preserved for a length of *ca.* 9.0–9.5 cm. Among the remaining types, the decoration begins 1.5–3.5 cm below the rim. There is also considerable variation in the combing; certain decorative patterns reveal a shallow, delicate design (V1506), whereas other vessels have a crisp, deeply etched combed decoration (V1505). There is also a certain degree of variation in the tightness of the wavy lines, with certain vessels bearing only a gently undulating line.

V-2/a-1. Flattened Rim Basins with Combed Wavy Lines and Chain Decoration

Four discrete vessels of this sub-type can be identified, although only two vessels (V1502, V1508) have the combed chain motif.⁸⁴

Catalogue

V1502 (Fig. 8.17:6; D12/13.1). Int rim D 40.0 cm; light red (2.5YR 7/8) fabric, pink (5YR 7/4) core, very pale brown (10YR 8/2) slip; partially restored.

Description: The most impressive design is found on V1502; there are two bands of combed wavy lines below the rim, a combed chain design and two more bands of wavy lines. The wavy bands were incised with a four-toothed comb, while the chain was made with a three-tooth comb.⁸⁵

Parallels

Tall Yāduda: One of the few examples of the flattened, very slightly thickened rim form is found on a large bowl with two widely spaced bands of combed wavy line decoration (Herr 2003: fig. 3:10).

Siyâgha (Mount Nebo): Although basins with a notched rim were the dominant type at Siyâgha, a few plain rim basins (Schneider 1950: pl. 152:17, 20) have the double combed wavy lines and chain decoration seen on V1502.

Umm al-Rasas: A basin with a rounded thickened rim is only partially preserved; however, it appears that there were at least two wavy bands, a chain, and another wavy band below the chain (Alliata 1991: fig. 19:19).

⁸⁴ One rim sherd is unregistered.

⁸⁵ Mended sherds TJ-D13/21.3+D23/66.3 have a similar pattern, all elements of which were formed with a four-toothed comb. In this example, there are two bands of combed chain decoration flanked by bands of wavy lines.

V-2/b. Rounded Rim Basins with Combed Wavy Lines

One vessel with a rounded, slightly thickened rim has five combed bands around the body. The two upper bands appear to have continued under the handle, although the next two bands (or the ends of a chain) are at some distance from the handle, as if this was its intended position. All five bands are close together, one immediately below the other.⁸⁶

Catalogue

V1501 (Fig. 8.18:1; D23.23.2). Rim D 37.0 cm; pinkish gray (7.5YR 7/2) fabric, pale yellow (2.5Y 7/2) slip; partially restored.

Description: At least one band of combed wavy lines is incised below the rim and above the chain motif, while two bands of wavy lines are incised between the chain motif and the lower body; of special interest is the fact that the potter used several different combs on the same vessel, one with three teeth below the rim, and one with four teeth lower on the body.

Parallels

Tall Yaduda: The best example of this vessel form and decoration (Herr 2003: fig. 3:1) comes from a site within 2.0 km of Tall Jawa. The design consists of two bands of wavy lines, one band of the chain or intersecting wavy line pattern, and two more bands of single wavy lines.⁸⁷

Dhībān: In the sherd material from the first excavation season (1950–1951), there is an example of a bowl decorated with a band of wavy lines incised with a five-toothed comb (Winnett 1964: pl. 17:5). As well, a basin sherd preserves an example of the chain design flanked by combed wavy bands (Winnett 1964: pl. 15:15).

Umm al-Rasas: A fine example of a relatively shallow basin with an everted rim and outer wall decorated with wavy bands and double chain decoration could not be completely restored (Alliata 1991:394; fig. 16:1), but the suggested height is between 0.15–0.20 cm. Additional sherds are also evidence for this popular pattern (Alliata 1991: fig. 23:9).

⁸⁶ A sherd with the one wavy band tightly flanked by straight combed bands is assigned to the Umayyad period at Tall Nimrin (Flanagan *et al.* 1994: fig. 17:8).

⁸⁷ The rim is slightly thinned (pointed) toward the lip, whereas the rim of V1501 is rounded. Herr cites as a parallel a basin from al-Muwaqqar (Najjar 1989: fig. 5:15); however, this basin has a design of straight, horizontal combed bands framing an oval or chain motif. Straight combed bands also appear in the Tall Jawa corpus (TJ-D23/36.3), although they appear to be on the diagonal.

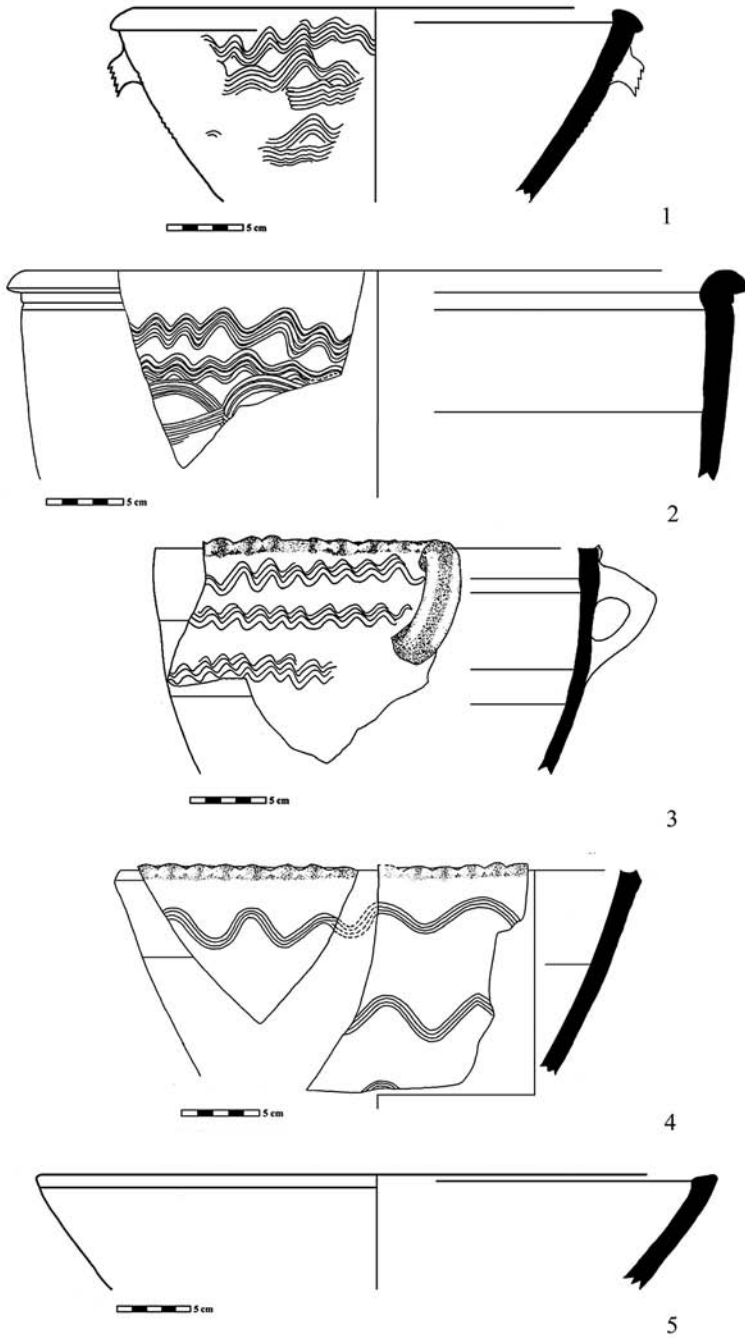


Figure 8.18. Large Basins, 1) V1501; 2) V1508; 3) V1505; 4) V1507; 5) V1504.

V-2/c-1/b. Everted Round-Rim Basins with Combed Wavy Lines and Chain Decoration

The basin in this sub-type has a large out-curving rounded rim, but shares the same decorative pattern as V1502, above.

V-2/c. Everted Rim Basins

V-2/c-1. Everted Thickened Rim Basins with Combed Wavy Lines and Chain Motif

Catalogue

V1508 (Fig. 8.18:2; D13/87.8). Int rim D 45.0+ cm; pink (5YR 7/4) fabric, light reddish brown (2.5YR 6/3) core, pale yellow (2.5Y 8/2) slip; broken.⁸⁸

Parallels

Dhībān: One large body sherd, identified as a jar sherd by Tushingam (1972:136; fig. 5:17), preserves a combed chain flanked above and below by a band of wavy lines.

Umm al-Rasas: In the sherd material is a rim form that is folded to the outside similar to V1508, except for the wavy band on the top of the rim itself. At least two parallel wavy bands are preserved on the upper body (Alliata 1991: fig. 23:10).

V-2/d Pinched-Rim Basins

The basins within sub-type V-2/d-2 are typically of a bright red fabric, with a very pale brown exterior surface and a pinched pie-crust rim. These large vessels are decorated with a variety of styles of combed wavy lines. Identifying the exact number of teeth in the combing tool is not an exact science, because the potter often held the tool on a slight angle. The result is that on occasion, only some of the teeth touch the vessel wall.

V-2/d-2/a. Pinched Rim with Tight Wavy-Band Decoration

⁸⁸ Sherd D34/2.3, with the edge of the folded clay visible on the exterior, is almost identical in rim form to V1508. However, this sherd was recovered outside B600 during the excavation of Building 625.

Catalogue

V1505 (Fig. 8.18:3; D32/18.1). Rim D 27.0 cm; light red (10R 6/6) fabric, very pale brown (10YR 8/2) slip; partially restored.⁸⁹

Description: The pinched rim and combed decoration were both deeply formed in contrast to the design on V1507. Three tight bands of decoration (three peaks within 4.5 cm), incised with a 3-toothed comb, cover the area between the rim and the base of the handle (ca. 7.0 cm); the lower body is undecorated.

Parallels

Pella: A small sherd with pinched rim and a tight wavy line pattern is assigned to Ware D, which is a dark gray or buff ware (Watson 1992: fig. 6:47).

Jarash: An undecorated basin (Schaefer and Falkner 1986: fig. 10:7) with a pie-crust rim indicates that this style appeared also in gray or reduced ware.

Amman: Finds from an Umayyad period house on the Citadel included a small basin or 'large bowl' (J1714) with a pie-crust pinched rim and three bands of wavy combed decoration (Harding 1951: fig. 2:57=pl. III:57).

Tall Nimrin: A sherd with pie-crust rim and incised wavy lines was among a handful of early Islamic sherds assigned to the Abbasid period (Dornemann 1990: fig. 1:26).

Madaba: Although no decoration is illustrated, a large red ware vessel with a white slip has a crisp pie-crust rim (Acconci and Gabrieli 1994: fig. 46:15).

*V-2/d-2/b. Pinched Rim with Loose Wavy-Band Decoration**Catalogue*

V1507 (Fig. 8.18:4; D32/35.1). Rim D 32.0 cm; light red (10R 6/8) fabric, very pale brown (10YR 8/2) slip; broken.⁹⁰

Description: The outer edge of the rim is gently pushed to form a pie crust design.⁹¹ So too, the incised decoration is gentle, consisting of

⁸⁹ Two mended sherds from an unregistered base appear to be part of V1505; the interior and exterior tooling marks, the fabric, and the slip are all identical.

⁹⁰ Sherd D23.13.1, recovered in the debris of Room 607, may belong to the same vessel, although the design appears less well executed.

⁹¹ Two sherds (D2/24.1, D24/1.1), apparently from the same vessel, also have a gently pinched rim; however, the outer wall appears to be undecorated.

three narrow (0.5 cm) bands of elongated wavy lines (two peaks in 6.5–7.0 cm), covering an area below the rim of *ca.* 14.0 cm.

Parallels

Umm al-Rasa: Although Basin R 111 has a flattened rim and is not an exact parallel, the combed decoration consists of one deeply incised tight wavy band above two loose wavy bands (Alliata 1987:231; fig. 7:38).

V-2/e. Undecorated, Bevelled Rim Basins

Catalogue

V1504 (Fig. 8.18.5; D12/20.2). Rim D 44.0 cm; light red (2.5YR 6/6) fabric, pinkish white (7.5YR 8/2) slip; broken.

Description: This simple, thick-walled vessel has a flattened rim with a diagonal or bevelled profile. To date, there are no known parallels.

W. DRAIN PIPES

Criteria and Technology: The single ceramic pipe provides criteria that are standard for this class; a long cylindrical body, a curvature at the narrowing end, and a thickened or squared rim open to receive the adjoining pipe. Tooling marks in the form of incised bands are seen on the exterior; the first is 16.0 cm below the rim, a second is 5.0 cm below the first, and a third is 5.0 cm below the second. Rills on the interior are more pronounced in the lower half of the pot, and were not smoothed over during the final finishing. For the function of this particular pipe, see Chapter 6 above.

Catalogue

V653 (Fig. 8.19:1; D13/32.1). Cylindrical pipe; D19.0–21.0 cm, H 29.0 cm; pink (5YR 7/4) fabric and exterior, light red (2.5YR 6/6) interior; chipped, pitted and broken.

Ceramic drain pipes were used during various periods throughout the Levant; for example, an elaborate drainage system was in place in Field F at Late Bronze Hazor (Yadin *et al.* 1960: pl. CXLVII:7–9=CXCIV:1–3). During the Roman and Byzantine periods, clay pipes used as steam pipes in the walls of bathrooms and as drains were preserved at Gadara (Nielsen *et al.* 1993: pls. 34, 35). At Jarash, a section of pipe with an

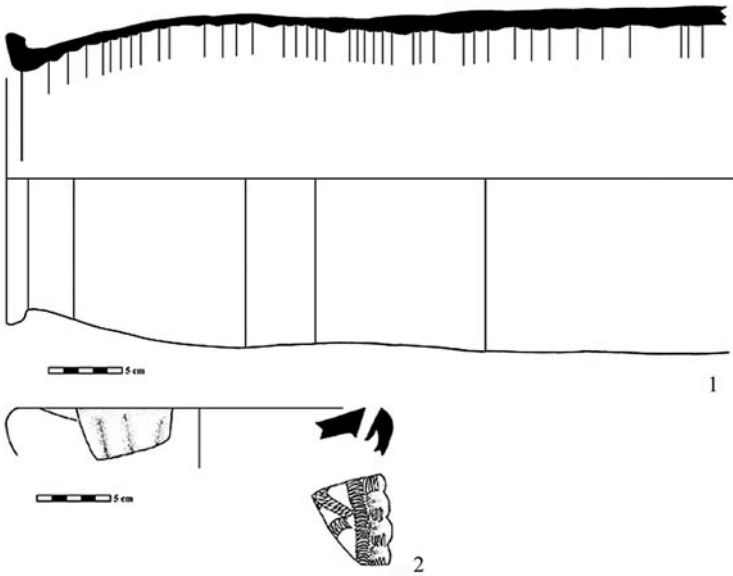


Figure 8.19. Drain pipe, 1) V653; Unknown vessel, 2) D14/10.12.

omphalos base was connected with a second pipe forming an L-shaped join (Fisher and McCown 1931: fig. 2). The pipes from ‘Amman have a horizontal protrusion at the point where one pipe rests on the opening of its neighbour (Olávarri-Goicoechea 1985: fig. 18:16).

Parallels

Gadara: The closest parallels are those drain pipes with an everted rectangular rim (Nielsen *et al.* 1993: pl. 35:320, 323).

Y. MISCELLANEOUS

Y-1. Vessels with Chiselled/Rouletted Decoration

Description: Only one body sherd retains evidence of what appears to be a chiselled decoration. The position of the design is unusual, in that it begins immediately above the base. However, there is another sherd in the corpus that has painted decoration in the same position (C65/43.2). Examination of the striations in the depressions suggest the use of a tool rather than a roulette, although a similar incised pattern is described elsewhere as ‘rouletted’. The latter is a pre-firing

technique which is more likely for an overall design than post-firing chiselling. At present, the identification of the technique used on the Tall Jawa sherd is tentative.

Catalogue

Sherd D31:21/46.21 Possible base sherd; light reddish brown (2.5YR 6/4) fabric, light red (2.5 6/6) surface; radial design, chiselled.

Parallels

Nessana: A chiselled design appears on the lower body of a vessel (Baly 1962: pl. LVIII:35).

Khirbat as-Samra: Although much more elaborate than the Tall Jawa sherd, the “vase” (medium size jar) from Khirbat as-Samra provides an excellent example of the use of this decorative technique. Here, the chiselled decoration is restricted to the shoulder and was impressed before firing (Humbert 2001: fig. 8).⁹²

Jarash: One small jug sherd from the temple of Zeus at Jarash has a chiselled decoration on the body, just below the shoulder (C. 1744; Rasson and Seigne 1989: fig. 5:8). Another sherd belongs to a bowl with two chiselled bands flanking a lozenge design (Gawlikowski 1986: pl. XI), and a number of sherds from the *Macellum* have a decoration described as “*pseudo-excision*” (Uscatescu 2001: fig. 9:1–6).

Madaba: Pottery collected in an area southeast of the Burnt Palace includes one jar with rouletting on the shoulder and lower body (Piccirillo 1986: fig. 7:3).

Dhibân: The same notched pattern of diagonal and vertical lines on the Tall Jawa sherd appears on a shoulder fragment of a jug; Winnett (1964:25; pl. 15:4) accepts the late Byzantine–early Islamic dating of Schneider for this technique.

Humayma: This same chiselled technique in the form of a cross appears on a large storejar or pithos in the Lower Church at Humaya (‘Amr and Schick 2001: fig. 6:10); here the cross sign may have designated wine for the sacrament.

⁹² The technology of this vessel (S. 2598) is described by A. Desreumaux in the catalogue of the Musée national du Luxembourg (1986:271).

*Y-2. Unknown Vessel Types**Catalogue*

D14/10.12 (Fig. 8.19:2). Sherd, T 1.10 cm; light red (2.5YR 7/6) fabric, very pale brown (10YR 8/3) slip; perforated.

Description: One thick-walled sherd with a sharp change of direction comes from an unidentifiable vessel. On the outer wall (as illustrated), there is a row of holes formed pre-firing, each 1.0 cm in diameter. These holes are flanked by rouletting; a band of rouletting runs below the holes and is linked to a garland formed by wedge-shaped rouletting. On the upper surface, there is a row of elongated grooves or finger depressions, which begin above the level of the holes and are between each pair. The function of the holes and their exact position in relation to the vessel as a whole remains unknown.

Parallels: The rouletted design consists of overlapping triangular depressions, a style of 'chiselled' decoration that is present on various vessel forms in late Byzantine assemblages at Pella (Smith *et al.* 1992: pl. 114:3, 6) and Jarash (Fisher and McCown 1931: pl. 13:A14).

SPECIAL FEATURES

Bases

The types of bases identified in Table 8E (above) are not equally represented in the corpus. Rounded bases are few (Fig. 8.20:1), as are button bases and large knob or stump bases from pithoi (D21/9.1; Fig. 8.20:2). More common are the flat bases which are found on ribbed juglets (D23/10.18, D23/11.14; Fig. 8.20:3) and on cylindrical, vertical-sided bowls (V630, V631). A study of the forming techniques reveals that the bases of both of these vessel types were closed from the outside. Another flat base is the string-cut base which is represented on a small juglet (Fig. 8.20:4), with a parallel at Buṣrā (Joly and Blanc 1995: fig. 6:72). The largest of the flat bases are the hand-made slab bases of large basins (Fig. 8.20:5).

The low, flattened ring base is found on juglets, especially on those with a crisp, hard fabric, which is in contrast to the porous fabric of the ribbed juglets. This same carefully formed and trimmed base appears as well on plain cups (Fig. 8.20:6) and on the highly ornate 'cup' or small bowl (V629); an undecorated parallel is found at Tal 'Ira (Fischer and Tal 1999a: fig. 6.134:7).

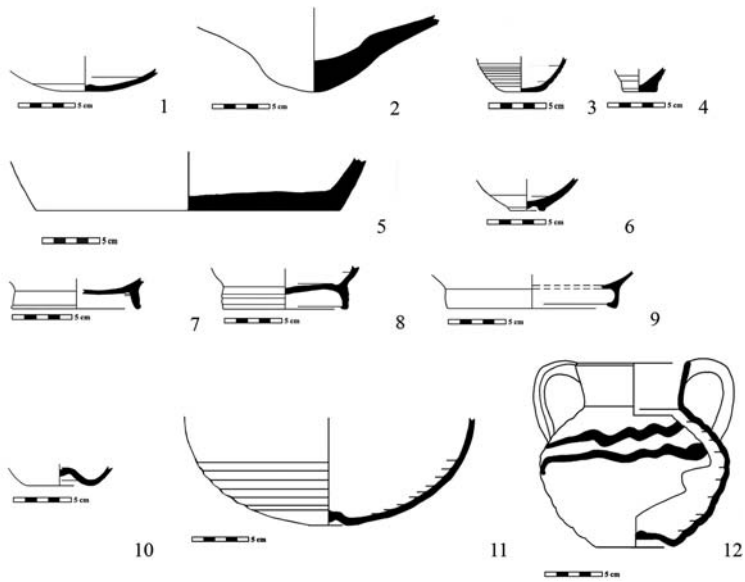


Figure 8.20. Bases, 1) D31/49.5; 2) D21/9.1; 3) D23/11.14; 4) 2/22.1; 5) D2.28.2; 6) D32/48.7; 7) D21/3.1; 8) D21/16.2; 9) D12/35.3; 10) D23/11.15; 11) D23/59.2; 12) V638.

Large bowls and certain jar forms typically have a pedestal or high ring base (Fig. 8.20:7, 8). These bases can be thin and delicate with a rounded lip, or thick and flattened with a squared foot. The most elaborate example of this form has a broad L-shaped foot (D12/35.3; Fig. 8.20:9). The rings/pedestals range in height from 0.8–3.1 cm and from 0.4–0.8 cm thick (at the point of attachment to the vessel). These bases appear on medium size jars and large bowls, painted on either the interior or exterior. A good example of a ring base with paint on the exterior is found at Pella (McNicoll *et al.* 1982: pl. 140:12). The forming techniques used to produce a large bowl with a high ring base are illustrated by Franken and Kalsbeek (1975: fig. 32). Numerous bases of this type, showing the same range of sizes as those at Tall Jawa, are present in the corpus from Madaba (Acconci and Gabrieli 1994: figs. 49:1) and from Umm al-Rasas (Alliata 1991: fig. 10:50; 1987: fig. 5:11, 12).

The omphalos, or pushed-up base, is the most common form (Fig. 8.20:10–12).⁹³ The large number of omphalos base sherds in the

⁹³ The base of the vessel was closed from the outside and a small navel remains in place (D23/11.8). Then extra clay was added and the pedestal base was formed.

corpus indicates that a variety such as jugs and small jars of small vessels, as well as large piriform vessels with ribbed bodies (Fig. 8.20:12), had this base form. Cylindrical bottles have flattened bases that are only slightly concave and were formed by being closed from the outside. These are classed with the omphalos bases because there is an obvious 'navel' (such as V675).

CONCLUSIONS

The Tall Jawa corpus consists primarily of wheel-made vessels, with only a small number of forms made by hand. For the most part, the hand-made forms are pithoi and basins; evidence of the forming techniques is seen clearly on the interior surface of pithos sherds which are covered with depressions formed by finger marks. In contrast, the smoothed slip on the interior of certain basins partially obscures the hand modelling. The only forms made in a mould are the ceramic lamps (see Chapter 9, below). A similar range of techniques is represented in the corpus from Hisban (Sauer 1986:305).

Certain well known late Byzantine and Umayyad vessel types and surface treatments are not represented in the Tall Jawa corpus. Among the fine wares, most notable is the absence of finely painted bowls in the palace ware style, even though they were present in small numbers at nearby sites, such as Umm al-Rasas (Alliata 1991: fig. 27:6=photo 10, 9, photo 8),⁹⁴ and at Capernaum to the north (Peleg 1989:102–106; figs. 62–69). There are also no examples of cut-ware (*kerbschnitt*) or of glazed ware bowls, even though such pottery was present at neighbouring sites (see Chapter 15 below). Cut-ware was present at Hisban (Sauer 1973:43) and Khirbat al-Mafjar (Baramki 1944: fig. 6:24), and accidentally glazed wares assigned to the Byzantine period were produced at Dayr 'Ain 'Abata (Freestone *et al.* 2001), while Islamic glazed ware dating to the 8th–9th centuries appeared at various sites in Palestine and Jordan as well as at Qal'at Sim'an in Syria (Orssaud 2001: fig. 1). Both wares are missing at Tall Jawa, although the number of painted vessels indicates a workshop in the area producing various types of painted vessels.

⁹⁴ Of note is the fact that these wares are extremely rare in the total corpus at Umm al-Rasas. Whether this is a chronological factor or regional feature of the corpus cannot yet be determined.

In the storage assemblage, gray ware bag-shaped storejars are also missing. These jars, with two handles attached at both ends to the shoulder, were common throughout the region from Tel 'Ira in the Negev (Fischer and Tal 1999a: figs. 6.115, 118) to Ḥorvat ha-Nadiv north of Caesarea (Calderon 2000b:127),⁹⁵ and from Jarash (Clark 1986: pl. XIII:25, 26) to Umm al-Rasas in Transjordan, where the jars are typically decorated with white painted designs (Alliata 1994a: fig. 94=1991: fig. 12:1). The single large gray jar at Tall Jawa is unpainted and has handles springing from the rim, a style without known parallels in the region. Other large jars formed of various fabrics are either painted in red on a light coloured slip or are simply undecorated. In these examples, handles do appear on the shoulder. Among the medium jars, one vessel (V640) does have the sharp change of direction distinctive of "buff Mafjar ware" (Magnez 2003: fig. 4), however, this vessel is also painted with the typical reddish paint on a light-coloured slip.

EXCURSUS: PAINTED, INCISED AND ROULETTED DESIGNS ON THE POTTERY FROM TALL JAWA

In order to put the pottery of Tall Jawa into perspective in relation to the better known pottery of Jordan, a brief comparison of its painted designs is made with that of the pottery from Jarash. A typology of these painted and incised designs on the Roman and Byzantine pottery from the *Macellum* is presented by A. Uscatescu (1996: figs. 26–29). In this review of the decoration of Tall Jawa pottery, the codes developed by Uscatescu are employed where appropriate.

Painted Decorations (Uscatescu 1996: figs. 26–27)

Cups: One design appears on the most completely preserved hemispherical cup, a painted wavy line flanked by bands on the interior. Other designs appear to be used as well but are less well preserved; these include painted linked circles or loops (11a), also on the interior.

Small Bowls: Three painted designs and their variants are used on hemispherical and cylindrical bowls; parallel wavy lines (4c), crossed lines (8a), pendant loops/garlands (9b, 9e).

⁹⁵ The 103 jars from the pottery pit at Ḥorvat 'Aqav were made of red ware, rather than a gray ware, but were also decorated with white "slip" (Calderon 2000a:219).

Large Bowls: Designs on large bowls are a combination of geometric and floral motifs, some of which are not found at Jarash, although they do appear on vessels at Umm al-Rasas (see parallels above). These designs include pendant loops or lines forming half circles (16h) with dots between the lines, sprigs (13a) combined with spirals (10a), horizontal wavy lines (4b) flanked by horizontal bands, radial lines alternating with radial wavy lines (4d; similar to 27c).

Small Jars: Two painted designs are represented on the bodies of these small vessels, spirals (10a) linked to a stripe on the handle, and upright loops (11a). Wavy lines and upright loops are combined to decorate the neck. These two patterns are also seen at Siyâgha/Mount Nebo (Bagatti 1985: fig. 18:20, 23).

Medium Jars and Jugs: Twin parallel wavy lines appear on the shoulder of both medium-size jars and on jugs. On the neck of certain medium jars, there is a pattern of tightly linked Vs (5a) accompanied by linked loops on the shoulder (11a).

Large Jars: Spirals in opposing directions (10b) alternating with sprigs are the dominant designs on large jars. Sprigs also appear on the small conical amphora (D23/13.13).

Along with these painted designs, there is a certain amount of paint on the rim of basically unpainted bowls and kraters. This consists of strokes of red paint positioned across the thickness of the rim. In our corpus, the amount of painted pottery indicates a highly developed potting tradition that is not restricted to major centres, such as 'Amman, Madaba, Jarash, and Pella. A second decorative technique, also represented on Byzantine period pottery, is incising, either as single lines or as combed bands.

Incised Designs (Uscatescu 1996: figs. 28–29)

Incised designs appear on bowls, jugs, jars, pithoi, and basins.

Bowls: A single incised wavy line appears on the exterior of the bowl below the rim (4f).

Strainer Jugs: The incised and punctured decoration on Strainer Jug V649 does not appear to have a parallel in the *Macellum* corpus.

Spouted Jugs: Combed bands of wavy lines alternating with horizontal combed bands appear on the shoulders and bodies of certain jugs (4h).

Pithoi: Incised bands of double or triple incised wavy lines on the shoulder section of several pithos sherds appear to have been formed individually, rather than with a comb.

Jars: Only isolated sherds of large jars with incised decoration were recovered. However, the pattern appears to be that of alternating combed wavy and straight bands (4h).

Basins: A variety of patterns appear on thick-walled basins, a single band of combed wavy lines (4g), multiple combed wavy bands, and linked bands or chains flanked by one or two wavy bands (not represented in the *Macellum* corpus at Jarash).

Lantern: Several incised trees are preserved on the body of the lantern (similar to 13c), along with crossed lines on the shoulder (similar to 5c).⁹⁶

Impressed Designs

Elongated finger depressions, circular perforations, and rouletted decoration, consisting of a straight band and a wavy band of wedge-shaped depressions (4k), appears on a single sherd (D14/10.12), which forms part of an unknown vessel type.

The incorporation of these decorative styles in the pottery of Building 600 clearly shows its continuity with the Late Byzantine potting traditions of central Jordan, especially those represented in the corpus of the Jarash *Macellum*. That some of these styles continued during the transition period and even into the early Islamic is also seen in the similarity to bowls from Umm al-Rasas, the Umayyad palace at 'Amman, and the Early Islamic period at Jarash. This said, it is important to note that the fabric of many vessels in the Tall Jawa corpus is compact, somewhat harder than that of similar vessels from Umm al-Rasas (personal observation). While very similar shapes and decorative motifs are used at both sites, there clearly were different potters at work who had their own clay procurement and processing techniques, and may even have fired their large pots at different temperatures. At the same time, there is diversity among the Tall Jawa fabrics themselves, with small bowls and juglets appearing in both crisp and porous wares. The range of vessel types, styles and designs from Building 600 is a contribution to the pottery of the central Jordan plateau which may help to put in perspective the ceramic traditions of the Late Antique period.

⁹⁶ A single body sherd also has incised crossed lines on the exterior surface (D14/2.1).

CHAPTER NINE

THE CERAMIC LAMPS FROM BUILDING 600

Martin Beckmann and P. M. Michèle Daviau

INTRODUCTION

Along with the painted pottery, the most important chronological indicator is the corpus of mould-made ceramic lamps with shoulder decoration in low relief. A total of 60 complete or partially restored lamps, drawn from 330 registered lamp fragments, were recovered from Building 600 during the 1991–1995 seasons. Altogether, the assemblage comprises more than 107 individual lamps,¹ dating to the Late Byzantine and Early Islamic periods. This final report includes a description of the registration procedures used to catalogue the lamps, an introduction to the methodology employed to establish the taxonomy, and a presentation of the formal typology. A number of inscribed lamps are also included in this typology, while their inscriptions are discussed below by Johnson (see Chapter 10).

REGISTRATION SYSTEM

Each identifiable lamp fragment was given a diagnostic pottery registration number, which includes Site Code+Field+square number/pail number.sherd number (e.g., TJ D12/28.1).² Those lamps that were intact or of cultural significance received an object registration number in the range of TJ 1–2238. In such cases, the field registration number consists of Site Code+Field+square number/pail number.object number (e.g., TJ D12/28.185; TJ D33/26.1553; Table 9A). For ease of data entry, these lamps were later assigned an item number in their respective pottery pail; this number was then used as part of the image file name.

¹ This number (107) refers only to those fragments that represent distinct lamps and does not include base sherds.

² See Chapter 8 for details of the pottery registration system used in the field.

In the database, the lowest registration number serves as the control record for each lamp or group of sherds. Attempts to identify discrete lamps through restoration of sherd material resulted in a number of partially restored vessels. Following the system used with the ceramic vessels, each of these lamps and the intact lamps were then assigned a vessel number in order to simplify its catalogue entry.³ While all of the sherds and fragmentary lamps are curated at Wilfrid Laurier University, several complete lamps and inscribed fragments are kept at the Department of Antiquities in 'Amman (Table 9B).

In the catalogue presented below, only the best examples of each type or sub-type are described (see DVD for the total assemblage).⁴ In each entry, the maximum measurements are included;⁵ L(ength), W(idth), and H(eight), along with the Munsell colour codes and the condition of the lamp itself (sherd [s], broken, intact [chipped but not broken], or complete). Examples of close parallels are cited in an attempt to demonstrate the distribution of a given lamp form and style, as well as its chronological setting at various sites.

Table 9A. Ceramic Lamps and Lamp Fragments Given Object Numbers.

TJ 185	broken (V1631)	TJ 982	lamp, restored (V1630)
TJ 186	intact (V1602)	TJ 1007	intact, inscribed (V1645)
TJ 234	lamp sherd	TJ 1492	no handle (V1629)
TJ 512	sherd (V1646)	TJ 1493	intact, chipped (V1605)
TJ 555	broken (V1610)	TJ 1541	chipped (V1654)
TJ 795	worn, no handle (1636)	TJ 1553	intact (V1660)
TJ 940	broken (V1613)	TJ 1554	chipped (V1628)
TJ 950	chipped (V1656)	TJ 1555	chipped (V1642)
TJ 954	sherd (V1637)	TJ 1692	inscribed channel, sherd
TJ 981	intact, chipped (V1611)	TJ 1693	inscribed in arches (V1641)

³ For example, V1618 is the sum of 5 registered sherds (D23/8.13+D33/40.20+40.39+43.7+48.3).

⁴ See Chapter 16 for a list of fields in the lamp database. Wares were only given a preliminary description, and the most representative lamps in each type were assigned ware types.

⁵ When the base is missing, only the height of the top is given (for example, 2.0+ cm). The same applies to the length if more than half of the lamp is preserved; otherwise, the length is not given.

Table 9B. Lamps at the Department of Antiquities of Jordan in 'Amman.

TJ 186	intact	TJ 1553	complete
TJ 950	chipped handle	TJ 1555	chipped
TJ 1007	intact, inscribed	TJ 1692	inscribed channel
TJ 1541	chipped	TJ 1693	inscribed shoulder

METHOD OF CLASSIFICATION

Basic Typology

The lamps within this corpus are classified by formal type, based primarily on the form of the body and the shape of the handle, and secondarily on characteristic features of design.⁶ Within each type, distinctive decorative motifs constitute sub-types and, within these, variants are distinguished on the basis of minor variations in the basic decorative motif. The codes used in this study are similar to those designed for the pottery corpus (see Chapter 8, above); the class-type/subtype-variant (L-1/a-2).⁷ In the database for lamps, “type” is defined as channel nozzle, Jarash, candlestick (without a channel), or lamp (sherds that cannot be further classified). “Subtype” refers to the number of nozzles (single, double, and multiple). “Decoration” is the variant style, and each element of the design is named beginning at the wick hole; for example, a Type L-3 channel nozzle lamp with a single channel may include a bird (facing the handle), or an addorsed bird (looking back toward the wick hole), a vine and its ‘inhabitants’, such as (grape) cluster, leaf, palm trees, pomegranate, amphora,⁸ random grapes, etc.

The lamps were found in use with a predominantly Umayyad ceramic corpus and represent a variety of well-known types usually assigned

⁶ The initial typology established by Beckmann (Daviau and Beckmann 2001:262) will be maintained and expanded for Types L-2, L-3, and L-4. Type L-1, which initially included various late Byzantine lamp styles, has been refashioned and Type L-5 has been added to account for miscellaneous styles.

⁷ In the preliminary study by Daviau and Beckmann (2001), the type was designated by the class letter (L) and an Arabic numeral, e.g. L1, L2, etc. Subtype was designated by a Roman numeral in upper case, e.g. I, II, etc., and Variant was designated by a letter in lower case, e.g. a, b, etc. Thus the designation ‘L3.IVa.1’ would refer to Lamp Type 3, Subtype IV, Variant a, lamp number 1 of this Variant; this system has now been harmonized with that used to discuss the larger ceramic corpus (L-3/d-1/a).

⁸ This ceramic vessel is identified simply as a vase by Dauphin (1976a:120).

to the late Byzantine, Umayyad and early Abbasid periods. Four basic types are represented, along with numerous fragments which fall into a fifth ‘miscellaneous’ type. All except a handful of lamps are channel nozzle in style, with a channel that runs from the groove around the fill hole to the wick hole (probably as a safeguard for oil overflowing from the fill hole; N. Johnson, personal communication).

Type L-1 (Fig. 9.1:1) lamps are characterized by a thick-walled, almond-shaped body, a channel which tapers toward the nozzle, and a nub handle. A number of lamp fragments with a nub handle and various designs have been reassigned to Type L-5 (see below).

Type L-2 (Fig. 9.1:2) is commonly called the ‘Jarash’ type and is characterized by an elongated slipper-shaped body, a channel with parallel sides, and a tall curved tongue handle. A large almond-shaped foot is characteristic of the base.⁹

Type L-3 (Fig. 9.1:3) has an almond-shaped body, a channel with parallel sides, and a finger formed handle which is square in horizontal section. This was the dominant lamp style at Tall Jawa (Daviau and Beckmann 2001:263).

Type L-4 (Fig. 9.1:4) is characterized by a nearly circular body, a channel with parallel sides, and a mould-formed tongue handle which is semi-circular in horizontal section. Lamps and lamp fragments which do not fall into these four major categories are clustered together in Type L-5.

Type L-5 includes a variety of forms, most of which can be assigned to the late Byzantine period. Certain examples in this type have a circular ring base, rather than the almond-shaped base of Type L-3.¹⁰

⁹ This base form is represented by sherd TJ-D21/59.2 and was already known by Day (1942:74, 79; pl. XIV) in her study of unprovenienced lamps from the “Christian and Early Islamic periods”. In these lamps, the elongated nozzle and almond-shaped foot serve as a counter-balance to the tall handle, whereas lamps with a conical handle may have a ring base. An inscribed Type L-2 lamp was identified merely as an ‘Arab’ lamp when found at Jarash by the American Expedition in 1930 (Fisher and McCown 1931: fig. 1).

¹⁰ The shape of the base is well preserved on the partial remains of base TJ-D23/18.6 and on lamps illustrated by Day (1942:65–66, pls. IX–XI).

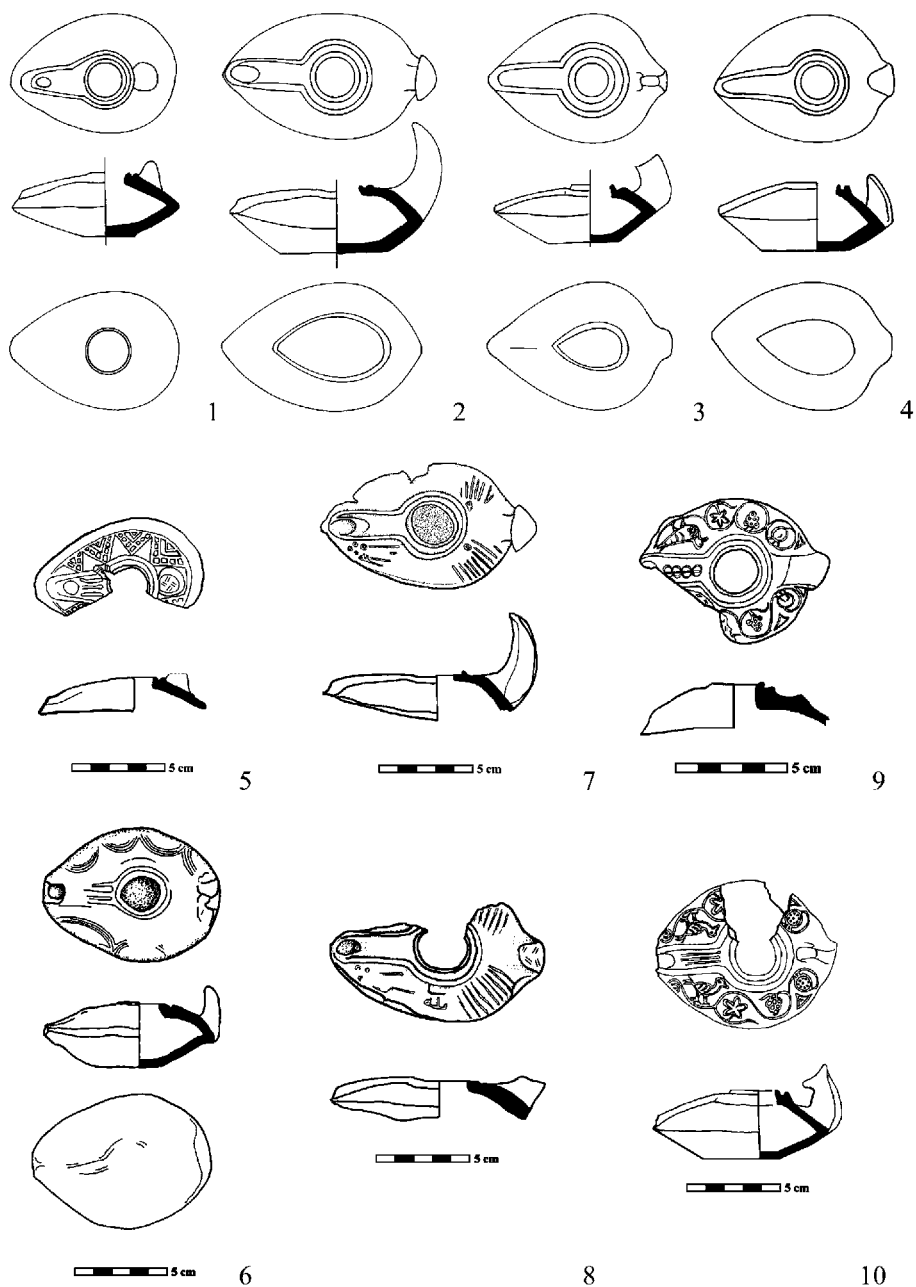


Figure 9.1. 1) Type L-1; 2) Type L-2; 3) Type L-3; 4) Type L-4; Type L-1; 5) V1607; 6) V1605; Type L-2; 7) V1603; 8) V1604; Type L-3; 9) V1622; 10) V1617.

L. LAMPS

*L-1. Tapering Channel Lamps**L-1. Channel Nozzle Lamps with Tapering Channel*

Criteria and Technology: The lamps and lamp fragments in Type L-1 include channel nozzle lamps with a variety of mould-made geometric designs on the shoulders, including chevrons, semi-circles, as well as an inscribed text. Two lamps assigned to Type L-1/a are sufficiently well preserved to identify their major features, while a third was roughly made. In all three cases, the body of the lamp is biconical and thick-walled. Like all channel nozzle lamps in the corpus, the upper and lower halves were formed separately and joined, probably prior to the removal of the upper half from the mould.¹¹ The fill hole is surrounded by two ridges, the outer ridge extending as far as the wick hole to form the channel. In sub-type L-1/a, the decoration consists of a pattern of hatched chevrons on the shoulder and parallel ridges in the nozzle. In the case of sub-type L-1/b, the shoulder has semi-circles or ovals, and for sub-type L-1/c, the shoulder is inscribed. The fabric of lamps in this type varies greatly from one lamp to another, but tends towards reddish-brown, coarse ware.

L-1/a. Channel Nozzle Lamps with Tapering Channel and Chevron Pattern

The distinguishing characteristics of Lamp V1607 are the hatched or laddered chevrons on the shoulder and the pattern of short parallel ridges in the channel.

Catalogue

V1607 (Fig. 9.1:5; D23/16.40). L 9.2, W *ca.* 6.0, H 1.8 cm; reddish yellow (7.5YR 6/6) fabric and surface, very dark gray (7.5YR 3/1) soot stain; broken (Daviau and Beckmann 2001: fig. 5:1).

Description: The clay is relatively coarse compared with our Type 3 lamps and the nozzle is heavily burnt. The handle was a small cone-shaped knob that is now a broken stub.

¹¹ This technique is illustrated by Franken and Kalsbeek (1975: fig. 6); see also Homès-Fredericq and Franken (1986:223).

Parallels

Parallels to the overall form and decoration of Type L-1 lamps are known from several sites, where they range in date from the 5th to the late 8th centuries AD.¹² Due to the small number of lamps within Type L-1 at Tall Jawa, such parallels do not provide a firm chronological setting for this type.

Capernaum: The chevron design appears on a lamp from Stratum IV, dated to AD 650–750 (Peleg 1989: fig. 70:9). Two lamps, one with a rectangular channel and the other with a tapering one, have chevron patterns (Loffreda 1974: photo 27:4, 5), although the designs in the channel and on the base are each different.

Tiberias: Stacey illustrates various styles of this lamp with adjoining triangles; the closest parallel has a conical channel (2004: fig. 6.5:1).

Khirbat al-Karak (Beth Yerah): Among the lamps from the church is one with the chevron pattern (Delougaz and Haines 1960: pl. 44:12=60:31).

Kursi: A lamp with hatched triangles from the Period II (7th–8th century) settlement (Tzaferis 1983:35; fig. 8:28) suggests that the settlement at Kursi may be contemporary to that at Tall Jawa.

Beth Shean: The chevron design appears on a Beth Shean lamp with a conical handle. Variants include a channel design of three circles in a row (seen also on lamps with different designs) and a decoration on the base (Hadad 2002:83, no. 358).

Khirbat al-Mafjar: Baramki (1944:73–74; pl. XVII:5, 7) dated lamps of this type to the period immediately preceding the earthquake of AD 747.

Umm as-Summaq: A lamp (Homès-Fredericq and Franken 1986:235: #793) very similar in form to type L-1/a was found with a 727 AD Arab coin in a farm building, which is thought to have collapsed in the 747–748 earthquake (Zayadine 1981:342).

¹² A lamp from Pella, identified among the ‘diagnostic Abbasid’ pottery by Hennessy (1989: fig. 14:3), has a similar decoration covering the entire shoulder, although hatched arches are used instead of chevrons. A single hatched triangle appears flanking the handle on lamps in the corpus from the Probatika in Jerusalem (Arndt 1987: fig. 6:92, 93), although the remainder of the shoulder is decorated with an inhabited vine, the dominant motif in that corpus.

L-1/b. Channel Nozzle Lamps with Semi-Circular Design

The semi-circle or semi-oval design is represented in two forms, one formed by a single line and one by a double line. In addition, the design with a single row of semicircles also has a variant with dots inside the circle.

*L-1/b-1. Channel Nozzle Lamps with Single Semi-Circular Design**Catalogue*

V1646 (D32/44.13=TJ 512). W *ca.* 5.4, H 3.0 cm; pinkish-gray (5YR 6/2) fabric, exterior and interior, gray (5YR 6/1) core, some exterior burn marks; ring base; broken.

Description: The design includes half-ovals/circles with the curve near the fill hole and a raised dot inside each semicircle.

Parallels

Umm al-Rasas: Two lamp sherds with a channel around the fill hole clearly preserve a relief design of semicircles and dots (Alliata 1991: figs. 6:17; 16:9).

*L-1/b-2. Channel Nozzle Lamps with Single Semicircles and Diagonal Lines**Catalogue*

D23/16.53 Shoulder sherd; W *ca.* 6.0 cm; pink (7.5YR 7/3) fabric, dark gray (N4/), soot stained ext.

Description: In the case of sherd D23/16.53, the body is made of a crisp ware and is relatively thin-walled when compared with other Type L-1 lamps. At the same time, it has a more complex design with a semicircle filled with three dots, two(?) diagonal lines, and an oval with a single dot.

Parallels

Amman: Although no exact parallels are known, a lamp sherd with a similar design is assigned to the late Byzantine–Umayyad period (Koutsoukou 1997: fig. 28). So too, an intact Byzantine lamp from the Lower Terrace of the Citadel shows that this semicircular design with dot was used on a narrow channel lamp with diagonal lines beside the channel (Zayadine *et al.* 1987: pl. L, 1:87).

Dhībân: In the case of a lamp from Dhībân, the motif is the same (Tushingham 1972: fig. 4:96), although the semicircles take up less space on the shoulder than those on the Tall Jawa sherd.

L-1/b-3. Channel Nozzle Lamps with Double Semi-Oval Design

Catalogue

V1605 (Fig. 9.1:6; D33/31.6=TJ 1493). Intact lamp, hand-finished; L 10.2, W 6.4, H 3.6 cm; pink (7.5YR 7/4) ext and int; complete.

Description: Lamp 1605 is unique in that it was coarsely formed without the refinement of the remaining lamps in this corpus. Finger prints are seen on the upper surface where the clay has been compressed and part of the decoration effaced. This suggests that the upper part of the lamp had originally been made in a mould, but was reshaped by hand to fit onto the base. The groove around the fill hole varies in depth around the lip of the hole. Both the wick hole and the fill hole are soot covered, indicating that this lamp was used extensively. In the channel, there is a faint pattern of chevrons, and the channel itself is broader near the fill hole than at the wick hole. The moulded design consists of a row of half-ovals, with their curve near the fill hole. This is an important distinction because at Beth Shean there were lamps with this pattern as well as lamps with the apex along the outer edge. The handle is irregular in shape, with one side formed of a lump of clay with the potter's finger print clearly visible.

Parallels

Capernaum: Loffreda (1974: photo 27:1) illustrates a lamp with the double semi-ovals that is a close parallel. There were also several examples of this lamp type, one with hatched semi-ovals from Stratum IV (AD 650–750), another from Stratum III (750–850), and one from Stratum II (850–950; Peleg 1989: fig. 70:6, 7, 10).

Tiberias: Several examples of this style appear, some more ornate than others (Stacey 2004: fig. 6.4:2, 3).

Nazareth: An intact lamp with hatched semi-circles is described as 'thick' ware (Bagatti 1969: fig. 236:8). A broken lamp has simple double semi-ovals (1969: fig. 236:9).

Beth Shean: A group of inscribed lamps share many of the same features, although they appear to be of finer quality (Hadad and Khamis 1998: figs. 3, 4, 5, 7). This group of lamps inscribed with the word الله, Allah, are all dated to the Umayyad period.

Pella: At Pella, a lamp with hatched semi-circles is a classic example of this style (Hennessy 1989: fig. 14.3).

L-1/c. Channel Nozzle Lamps with Tapering Channel and Inscription

Catalogue

V1648 (see Fig. 10.1:3; D23/15.58). W *ca.* 6.6, H 2.0 cm; reddish-yellow (5YR 5/6) fabric and surface; coarse and very worn, soot stained (5YR 2.5/1, black) nozzle; broken (Daviau and Beckmann 2001: fig. 5:2).¹³

Description: The front half of the shoulder and the channel from the wick hole to the rim of the fill hole is preserved. In the channel there is a pattern of lines which are perpendicular to the edges of the channel; this is in contrast to the design on Lamp V1607, where the lines run parallel. So too, the shoulder of Lamp V1648 is inscribed instead of decorated; however this lamp can be more closely associated in fabric and forming techniques with Type L-1 lamps than with other lamps in the corpus. No parallels can be cited at this time.

L-2. JARASH LAMPS

L-2. Jarash-Style Lamps

Two fairly complete lamps and four lamp fragments are assigned to Type L-2.¹⁴ The fabric varies from one lamp to another, but tends towards pink or pinkish gray fine ware. Although badly damaged, all Jarash lamps and lamp fragments found at Tall Jawa retain remnants of an inscription on the shoulder, a feature which suggests that these lamps were products of the Jarash workshop.

Catalogue

V1603 (Fig. 9.1:7; D23/15.34). Upper half with intact handle; L 10.0, W 6.8, H 2.2+ cm; pink (5YR 7/4) fabric and surfaces; thin porous ware, soot stained at the nozzle (Daviau and Beckmann 2001: fig. 5:3).

¹³ The lowest registration number is actually D23/15.58; it was previously published with the higher sherd number (D23/18.33), with which it mends, listed first.

¹⁴ The largest fragments include a large wick hole (D23/15.62) and a handle (D23/11.10).

V1604 (Fig. 9.1:8; D23/20.66). Upper half, handle broken; L 10.6, W 8.0, H 2.1+ cm; reddish yellow (7.5YR 7/6) fabric and interior surface, pink (5YR 7/4)–reddish yellow (7.5YR 7/6) exterior surface; thick hard ware; broken.

Description: The most complete upper half (V1603) of the two partially preserved lamps has a long intact tongue handle and the shadow of an Arabic inscription on the shoulder running from the fill hole toward the nozzle. A series of parallel lines radiate from the fill hole and flank the handle. The channel appears empty. Lamp 1604 also has the remains of an inscription which is partially preserved (Chapter 10, below). The base of the lamp appears to have folded over the edge of the shoulder along the front half of the lamp.

Parallels

Jarash: Type L-2 lamps are found at numerous sites throughout Jordan, all made in Jarash, a known production centre (Kehrberg 2000:160). Among Jarash Group V lamps, one example has an inscription with a date of AH 125/747 AD (Scholl 1986:165; fig. 1:9). Lamps from the residential area adjacent to the South Decumanus also bear dated inscriptions that fall in the short period from 740–750 (Gawlikowski 1986:120; pl. XIII:C). Similar style lamp wasters from the potters' complex in the North Theatre were also in a context dating to the first half of the eighth century (Schaefer and Falkner 1986:417; pl. VI:2). A good parallel to the Tall Jawa lamps is J. 2207, an unprovenanced lamp in the National Museum in 'Amman (Amiet *et al.* 1986:273).

Qasr Hallabat: Along with Umayyad pottery, a Jarash style lamp was found in a stratified context below several metres of fallen stone in an Umayyad castle abandoned “shortly after the fall of the Umayyad dynasty around the middle of the eighth century” (Bisheh 1982:143).

Jordan: Eight “Jarash” style lamps currently in Jordanian museums have been published. Three of these examples have dates incorporated into the inscriptions; the closest parallel in form and decoration was dated by Khairy and 'Amr (1986:147; fig. 6) to AH 133/723 AD. In a review of these lamps and their inscriptions, Gawlikowski (1995:672) proposes dates between AH 105–135/730–750 AD). Examples of uninscribed lamps found at 'Amman (Koutsoukou 1997:126, nos. 30, 31), are similar to those at Jarash that are decorated with radial lines on the upper surface. Other variations are seen on the lamps from Beth Shean (Hadad 2002:69, nos. 299–303).

L-3. ALMOND-SHAPED LAMPS

L-3. Almond-Shaped Lamps with Rectangular Channel

Criteria: Type L-3 is the most common lamp type at Tall Jawa, with 30 complete or partially restored lamps and more than 80 lamp fragments (including bases). This lamp form is characterized by an almond-shaped body and a channel with parallel sides. The ridge that forms the channel makes a sharp turn around the wick hole, making it vulnerable to damage. Numerous lamps in the corpus are broken at this point, making it difficult to determine the full length of the lamp.¹⁵ The handle is typical for Type L-3, finger formed and relatively square in section. The mould-made shoulder presents four distinct decorative motifs; a) an inhabited vine scroll,¹⁶ b) a continuous spiral, c) a parade of animals, and d) a net pattern.

L-3/a. Almond-Shaped Lamp with Inhabited Vine Motif

The inhabited grape vine is the dominant motif and appears in five variants depending on the object adjacent to the handle; a pomegranate, an amphora,¹⁷ a palm tree, a grape cluster, or a random grape design. So too, the motif flanking the channel varies; birds facing the handle, addorsed birds (with the head turned toward the wick hole), a palm, a leaf, a star, or small grape clusters. Within the inhabited vine, grape clusters vary in size and in the number of grapes in a single cluster. In the dominant pattern (3-2-1) the grape clusters hang from the vine, usually suspended by two stems, and taper from the fill hole toward the outer edge. It is only in rare instances that the clusters alternate in their position or that the entire pattern is inverted. There is some variation in the shape of the leaf, 5-lobed or 7-lobed. In one example, there is a flower in the place of a leaf, and on another lamp there is a star-shaped flower(?). In certain cases, individual moulds can be

¹⁵ It is also more difficult to mend fragments of the base with the shoulder when the wick hole is missing; a more fortuitous mend is D13/68.6+D23/60.2.

¹⁶ The tendrils of the vine form circles (medallions or volutes) which surround the grape clusters and leaves of the vine, as well as birds, pomegranates, and palm branches.

¹⁷ The vessel has a trumpet base, globular body, and a tall neck with two handles pulled from the rim to the shoulder. In this study, the vessel is identified as an amphora, rather than a krater, on the basis of common terminology used to describe similar vessels on mosaic floors (Piccirillo 1993:21, 340; image 747).

distinguished, either by the overall design and size of the lamp or the position of a small triangle used to fill empty space, either between the pomegranate and the vine or the handle and the pomegranate.

L-3/a-1. Almond-Shaped Lamp with Vine Motif and Pomegranate

The most common variant (L-3/a-1), with 39 examples,¹⁸ depicts a vine originating from a pomegranate in place on either side of the handle. The vine then forms a scroll and encircles first a grape cluster, then a leaf,¹⁹ and finally ends in a swirl beneath a bird which flanks the nozzle. The grape clusters contain 6 grapes in a 3-2-1 pattern and are separated from the pomegranate by a triangle. Most of these lamps have a simple channel decoration consisting of three parallel lines. In this report, the best examples are discussed and illustrated in the text, while all lamps are shown in the multimedia programme.

L-3/a-1/a. Almond-Shaped Lamp with Bird Facing the Handle

There are four sizes in this subtype, a small lamp measuring *ca.* 8.5 cm in length, a medium size lamp (9.0 cm),²⁰ a large lamp, 10.3 cm in overall length with the shoulder design proportionately larger, and an extra large lamp, 11.0 cm long.

L-3/a-1/a-1. Small Almond-Shaped Lamp with Bird Facing the Handle

Catalogue

V1622 (Fig. 9.1:9; D23/70.10). L 8.5, W 6.7, shoulder; H 1.9 cm; light reddish brown (5YR 6/4) fabric, pink (5YR 8/3) exterior surface; broken.

¹⁸ Two sub-variants appear in Subtype L-3/a; in sub-variant 3/a-1/a, a bird is looking directly towards the handle; in sub-variant 3/a-1/b, a bird looks over its shoulder toward the nozzle; and in the multiple-channelled lamp (V1650), a third sub-variant appears, the two birds on either side of the nozzle face in opposite directions. Beckmann's variant 3.Ic (Daviau and Beckmann 2001: n. 38) is now classified as a variant of Type L-3/a-1/a.

¹⁹ The decision to identify the five-lobed floral image as a leaf rather than a flower is based on the extensive study by Dauphin of the inhabited vine in architecture and mosaic floor design, where triangular grape clusters and grape leaves are the most common elements in the inhabited vine (Dauphin 1987: figs. 3, 5, 7, 8). As well, the vegetal pattern of grape clusters alternating with leaves is the designation for Group I lamps in the corpus from the Probatika in Jerusalem (Arndt 1987:247).

²⁰ These lamps are described as medium in size when compared with V1622 (L 8.5 cm), V1611 (L 8.5 cm), and V1644 (L 8.3 cm), see below.

Description: This small lamp has a very compact design with a short-necked bird filling the space between the channel and the outer edge. The bird's head is in the corner formed by the ridge of the channel and fill hole. Along with V1618, the vine appears to extend in the opposite direction (toward the handle) when compared with the medium and large size versions of this motif. This is seen most clearly in the direction of the stems of the grape cluster, which bend down from the direction of the nozzle, rather than from the handle. Another distinct feature is the design in the channel that consists of four circles in a row bisected by a straight line.

L-3/a-1/a-2. Medium-Size Almond-Shaped Lamp with Bird Facing the Handle

Catalogue

V1617 (Fig. 9.1.10; D23/9.14). L 9.0, W 7.0, H 3.3 cm; pinkish gray (7.5YR 7/2) fabric and surface; broken.

Description: Lamp V1617 sets the standard for the pomegranate and vine design. Unlike the smaller version (V1622) of this type, there is enough space for a full swirl at the end of the vine under the bird, and on this size lamp it is clear that the origin of the vine is near the handle.

Parallels

Jerusalem: Group II lamps from the Probatika (Arndt 1987: photos 5:48–52; 6:54–58, 60) share all of the design elements of V1617, including the small triangles along the outer edge to fill the gaps between the tendrils. So too, the standard design of three parallel ridges appears in the channel.

Madaba: Excavations at Tall Madaba have uncovered a late Byzantine-early Islamic building that yielded two fragments of moulded lamps with the pomegranate motif (Foran *et al.* 2004:90; fig. 11:8, 10). The authors assign these lamps to the late 7th–8th centuries AD.

Dhībān: Although the channel and nozzle are missing, the preserved design on this lamp shows a pomegranate (+triangle), the vine with a grape cluster, and a leaf (Tushingham 1972: fig. 5:18), all elements of this most popular design.²¹

²¹ So too, a lamp from Umm al-Rasas (Alliata 1991: fig. 11:8) has the pomegranate (+triangle) and grape cluster around the fill hole; only half of this lamp and its handle is preserved.

*L-3/a-1/a-3. Large-Size Almond-Shaped Lamp with Bird Facing the Handle**Catalogue*

V1609 (Fig. 9.2:1; D23/16.51). L 10.3, W 7.6, shoulder H 2.1 cm; light reddish brown (5YR 6/3) fabric and surface, light gray (10YR 7/2) core; broken.

*L-3/a-1/a-4. Extra Large Almond-Shaped Lamp with Bird Facing the Handle**Catalogue*

V1612 (Fig. 9.2:2; D23/10.10). L 11.3, W 8.1, H 3.5 cm; pink (5YR 7/4) fabric, very pale brown (10YR 8/3) exterior; broken.

Description: Lamp V1612 is an extra large lamp, most probably made from the same mould as V1615.²² Both lamps have a very fine ridge around the outside of the fill hole's double ridged rim. Because of their size, these lamps have a small triangle between the pomegranate and the cluster of grapes to fill the blank space created by the curvature of the shoulder.²³

*L-3/a-1/b-1. Small Almond-Shaped Lamp with Addorsed Bird Looking toward the Wick Hole**Catalogue*

V1611 (Fig. 9.2:3; D23/16.72). Intact lamp; L 8.5, W 6.0, H 2.9 cm; gray (10YR 6/1) fabric and exterior; handle missing; chipped.

*L-3/a-1/b-2. Medium-Size Almond-Shaped Lamp with Addorsed Bird Looking toward the Wick Hole**Catalogue*

V1614 (Fig. 9.2:4; D23/15.35). L 9.7, W 7.0, H 3.5 cm; light brown (7.5YR 6/3) fabric; partially restored (Daviau and Beckmann 2001:263, n. 38; fig. 5:4).²⁴

²² Lamp V1615 (D23/16.57) is somewhat vitrified, a fact that is reflected in its colour codes.

²³ A variant (D23/56.13) shows a three-lobed flower suspended between the pomegranate and the cluster; unfortunately, only the handle and back portion of the shoulder is preserved.

²⁴ V1620 (D23/16.74), a partially vitrified lamp, also fits into this subtype.

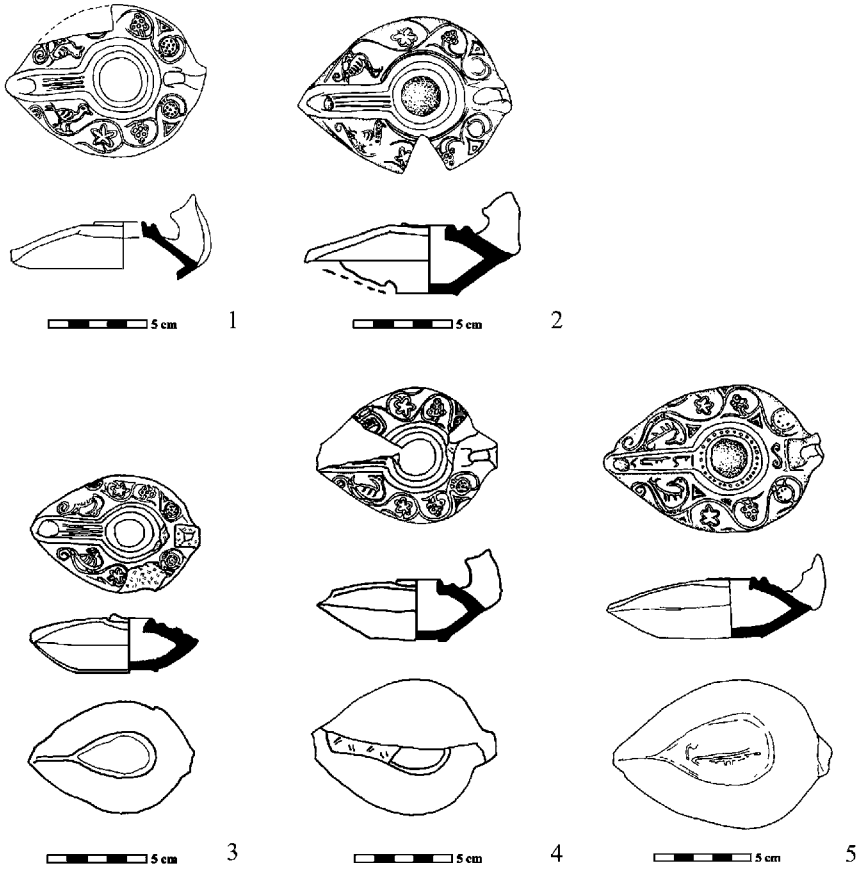


Figure 9.2. Type L-3: 1) V1609; 2) V1612; 3) V1611; 4) V1614; 5) V1645.

Parallels

Jerusalem: One example of a lamp with addorsed birds has a wide channel with an elaborate lozenge design (Arndt 1987: photo 5:53), a motif seen at Tall Jawa in a multi-channel lamp (D23/10.16).

Khirbat al-Majjar: Although the bird is not clear in the photograph, the standard vine and pomegranate pattern is represented in the assemblage (Baramki 1944: pl. XVIII:6).

Jarash: In a preliminary study of the lamps with an inhabited vine motif and an addorsed bird, Scholl (1986:165; fig. 1:11) provides one example of his type VI:2, which also includes a triangle beside the pomegranate. Another example was recovered in the domestic quarter (Gawlikowski 1986: pl. XIVB, left).

Khirbat Nakhil: One shoulder fragment with an addorsed bird and vine tendril adjacent to the channel (Kareem 1999: fig. 11:16) shows the distribution of this motif to the southeast of Karak.

L-3/a-1/b-3. Large Almond-Shaped Lamp with Addorsed Bird and Dots around Fill Hole

Catalogue

V1645 (Figs. 9.2:5, 10.1.1; D23/15.71=TJ 1007). Intact lamp; L 11.2, W 7.6, H 4.5 cm; light brown (7.5YR 6/4) fabric and exterior; inscribed; complete.

Description: V1645 is a variant which includes certain elements of the standard shoulder design along with an elaborate “S” between the handle and the fill hole. Additional elements in the design include triangles inserted at various places to fill gaps, one between the grape cluster and the pomegranate and another between the bird and the leaf. These triangles vary in position from one shoulder to the other because the design is off-centre. So too, the stems of the grape cluster hang from the vine in opposite directions.²⁵ In the channel around the fill hole, there is a circle of raised dots and in the channel itself there is an inscription (Chapter 10).

L-3/a-2. Almond-Shaped Lamp with Vine Motif and Amphora

In subtype L-3/a-2, a vine scroll emerges from an amphora lying on its side beside the handle. Two main variants appear in this subtype; variant 3/a-2/a has a small, short-necked bird with one wing raised. The channel is decorated with two ‘zigzag’ lines running along its length with a straight line in between. For variant 3/a-2/b, the channel is decorated with three parallel lines; this lamp type may also have a bird, although no complete example is preserved. The vine wraps around the grape cluster from below so that the stems extend downward from the direction of the nozzle, rather than alternating in different directions on opposing shoulders, as in Type L-3/a-1 above.²⁶

²⁵ Typically, the stems of the cluster hang from the vine from the direction of the pomegranate, whereas in subtype L-3/a-2, the vine proceeds out of the amphora and surrounds the grape cluster so that the stems hang from the direction of the nozzle.

²⁶ Another variant with a leaf flanking the channel (D33/51.7) may also belong to this subtype, although the sherd is too poorly preserved for certainty. For a complete lamp of this type, see Da Costa’s Type 28 (2001: fig. 4:9) from Dayr ‘Ain ‘Abata.

L-3/a-2/a. Almond-Shaped Lamp with Vine Motif, Bird, and Amphora

The bird, leaf and grape cluster in this subtype are all quite small, due to the size of the amphora. The result is that the leaf fills the space formed by the corner of the channel and the fill hole, and a very small bird stands beside the wick hole.

Catalogue

V1642 (Fig. 9.3:1; D33/53.15=TJ 1555). L 9.5, W 6.6, H 3.0 cm; pink (5YR 8/3) fabric, very pale brown (10YR 8/3) exterior surface; complete, nozzle chipped.

V1635 (Fig. 9.3:2; D23/14.3). L 9.0, W 7.1, H 3.0 cm; light reddish brown (5YR 6/4) fabric, pink (5YR 7/4) exterior; lime coated; broken.

Parallels

Palestine: Lamp GA 211, from the unprovenienced lamps in the Royal Ontario Museum collection, appears to be an exact parallel; it has the same shoulder design in the same position around the fill hole and the same pattern in the channel (photo courtesy N. J. Johnson).

Jerusalem: Among the 127 published lamps from the Probatika, there are only two lamp fragments with an amphora on either side of the handle (Arndt 1987: fig. 4:61). The second lamp appears as a variant (Group V; fig. 6:94) with a leaf as the first element beside the amphora, instead of the grape cluster.

Jordan: An unprovenienced lamp is a very close parallel in all elements of its design, including the zig-zag pattern in the channel (Khairy and 'Amr 1986: pl. XL:13).

Ḥumayma: Only the back half of the moulded upper portion, along with the handle, is preserved of a lamp found in surface debris (Oleson *et al.* 2003:57–58; fig. 19A). That this debris was along the west side of the Abbasid *qasr* does not confirm that the lamp was in use during the Abbasid period.

Dayr 'Ain 'Abata: A single mould-made lamp with a hand-made handle, shown in a group photo, has the amphora on either side of the handle (Politis 1990: pl. III:3).

*L-3/a-2/b. Almond-Shaped Lamp with Amphora, Grape Cluster, and Leaf**Catalogue*

V1638 (Fig. 9.3:3; D23/8.16). L 8.1, W 6.7, 2.4 cm; light reddish brown (2.5YR 7/4) fabric and ext; sandy fabric; broken.

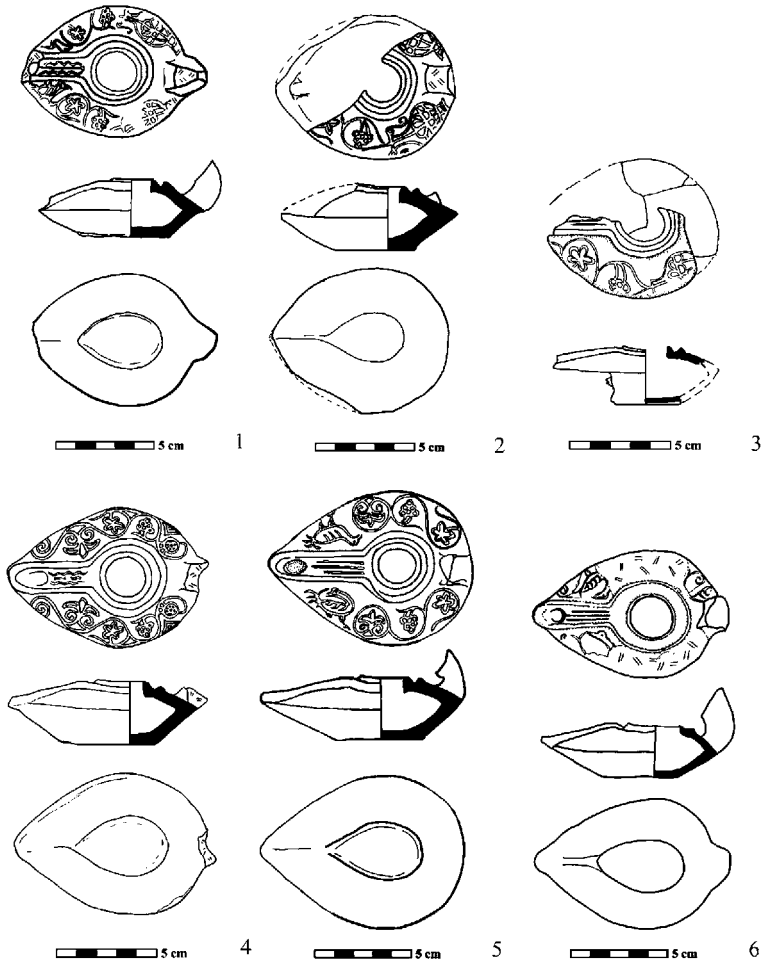


Figure 9.3. Type L-3: 1) V1642; 2) V1635; 3) V1638; 4) V1656; 5) V1660; 6) V1636.

Description: Although only partially preserved, it appears that the leaf is so close to the nozzle that there is no room for a bird.

Parallels

Khirbat al-Mafjar: Two lamps have a pattern of a vine growing out of a large amphora with a grape cluster and leaf that appears to fill the shoulder, with little or no room for a bird (Baramki 1944: pls. XVII:4; XVIII:3). Both of these lamps have the standard three ridges in the channel, although one lamp (XVIII:3) has a stylized flower(?) beside the fill hole instead of the grape cluster.

Jarash: Lamp 158 has the amphora motif, with the grape cluster and leaf, but without a bird flanking the nozzle; this lamp measures 10.0 cm in length, 7.5 cm in width, and 4.0 cm in height (Homès-Fredericq and Franken 1986:233; Gawlikowski 1986: pl. XIVB, centre).

L-3/a-3. Almond-Shaped Lamp with Vine Motif and Palm Tree

The major element of variation in this subtype is the presence within the vine of a palm tree²⁷ that appears at varying locations; beside the wick hole (with or without a bird; L-3/a-3a), in place of the pomegranate near the handle (L-3a-3b) or the leaf (L-3/a-3c) within the vine.

L-3/a-3/a. Almond-Shaped Lamp with Palm Tree beside the Channel

The dominant position of the palm branch (5 examples) is along the channel, although it also appears on the shoulder. Among those lamps with the palm branch adjacent to the channel (V1656), there is no room for a bird; instead, the vine tendril passes underneath the palm to end in a spiral beside the wick hole.

Catalogue

V1656 (Fig. 9.3:4; D23/10.19=TJ 950). L 10.0, W 7.0, H 3.0 cm; very pale brown (10YR 8/2) ext; handle missing, otherwise intact.

Parallels

al-Muwaqqar: An intact lamp with pomegranates flanking the handle has a palm tree on the shoulder filling the corner formed by the channel and the fill hole (Najjar 1989: fig. 10:60).

L-3/a-3/b. Almond-Shaped Lamp with a Palm within the Vine

The distinctive feature of this subtype is a bird facing the handle that is paired with an addorsed bird. Two lamps from the same mould have a large bird with long tail feathers and a vine which wraps around the palm, a grape cluster, and a leaf adjacent to the handle.²⁸

²⁷ The identification of this design as a 'palm branch' is tentative; it is based on the representation of the top of palm trees shown on mosaics, for example in a medallion located in the chancel of the chapel of the Twal family (Piccirillo 1993: fig. 138, 140–141), and on the Madaba map around the site of Zoora (1993: fig. 68). The clearest example is one of the elements within a hexagon in the nave of Egumen Church at Khirbat al-Samra (1993: fig. 611).

²⁸ Surprisingly, this elegant design is not represented in the Probatia corpus from Jerusalem (Arndt 1987).

Catalogue

1660 (Fig. 9.3:5; D33/43.28=TJ 1553). Complete lamp; L 10.5, W 7.8, H 3.2 cm; white (10YR 8/1) fabric and exterior surface; fine hard ware with small inclusions.

V1654 (D33/41.15=TJ 1541). Complete lamp; L 10.3, W 7.8, H 3.3 cm; very pale brown (10YR 8/4) ext; soot stained; chipped.

Parallels

Amman: Although this beautiful design rarely appears at other sites, one complete lamp (PO788) and a shoulder sherd (79114) made from the same mould were recovered from the Umayyad palace and residence on the Citadel (Olávarri-Goicoechea 1985:58; figs. 24:4, 52:18), while another sherd was recovered in Building F (Almagro *et al.* 2000: fig. 15:6).

*L-3/a-3/c. Almond-Shaped Lamp with a Fleur-de-Lis beside the Handle**Catalogue*

V1636 (Fig. 9.3:6; D23/3.1=TJ 795). Complete lamp; L 8.8, W 6.6, H 2.7 cm; pink (7.5YR 7/4) fabric and exterior surface; severe flaking on surface.²⁹

Description: Lamp V1636 alone in the Tall Jawa corpus has a fleur-de-lis design beside the handle.³⁰ This floral motif differs from the palm in that there is a central element/stem(?) standing the full height of the plant with petals curling outward from the base. In other respects, V1636 has the familiar addorsed bird flanking the sides of the channel and, although the shoulder is badly worn, there is sufficient space for a leaf and a grape cluster.

Parallels

Israel: The only known parallel with a fleur-de-lis design between two large grape clusters (4-3-2-1) is a tongue handle lamp in the Schloessinger collection (Rosenthal and Sivan 1978:135; fig. 554).

²⁹ A certain amount of lime incrustation gives the exterior a mottled appearance with patches of white (7.5YR 8/1) surface colour.

³⁰ This element has some affinity to the fruit trees depicted on mosaic floors which have rigid branches flaring diagonally from the main trunk. For example, such trees appear at Umm al-Rasas (Church of Bishop Sergius) and Madaba (Church on the Acropolis); as well, this motif continues into the early Islamic period as seen at Khirbat al-Mafjar (Piccirillo 1993: figs. 335, 308-310, 760, respectively).

L-3/a-3/d-1. Almond-Shaped Lamp with Six-Pointed Star and Two Grape Clusters
 Only one lamp (V1628) has twin grape clusters and a floral element in the shape of a six-pointed star on each shoulder. In place of the pomegranate is a medallion with a grape cluster followed by the 'star' with pointed lobes. The pattern then repeats with a flower adjacent to the wick hole. In the channel there are two large Xs bisected by a central line. A variant is seen in V1658, where one shoulder sherd has a stylized 5-pointed star/flower in the corner between the channel and the fill hole.³¹

Catalogue

V1628 (Fig. 9.4:1; D33/43.27=TJ 1554). L 9.5, W 6.7, H 3.3; pink (5YR 7/4) ext; shoulders chipped.

Description: The significant element here is the shape of the floral elements; instead of a leaf with five rounded lobes attached to the vine by a stem, there are six or more lobes with pointed ends and no stem.

Parallels

Israel: Although not a true parallel, one lamp does have a leaf with pointed lobes flanking the channel (Israeli and Avida 1988: fig. 549).

Lachish: A variation on this motif is seen on a lamp from Lachish that has a flower beside the handle, a grape cluster followed by a flower, and a second cluster beside the nozzle (Tufnell 1953: pl. 82:134).

Jerusalem: Group I in the lamp corpus from the Probatika is characterized by twin leaves alternating with grape clusters. Although the six-pointed star is not included, this large group (45 examples) is the most significant parallel, especially those lamps with the round-lobed leaves adjacent to the nozzle (Arndt 1987: photos 1, 2, 3:20–29).³² Another example from Jerusalem is from a fill (Tushingham 1985: fig. 34:5).

³¹ Only one example of this style of leaf is present in the Probatika corpus (Arndt 1987: fig. 7:105).

³² Also included in Group I are those lamps that have a grape cluster as the first element (Arndt 1987: photos 3:30–32; 4:41).

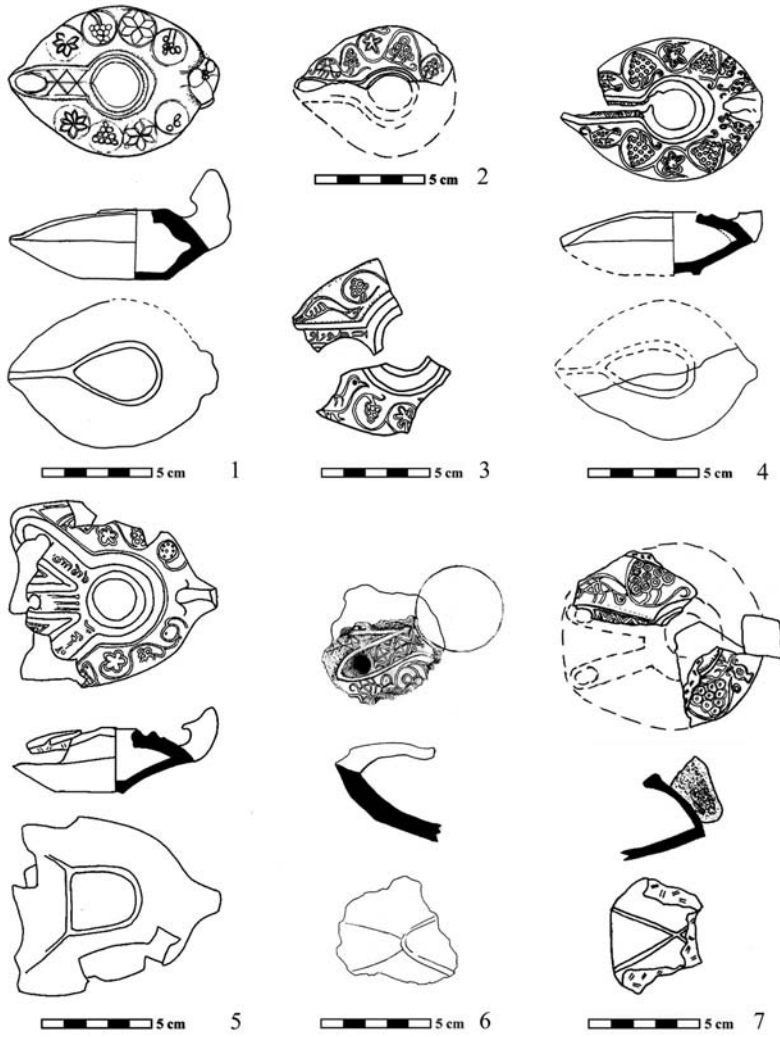


Figure 9.4. Type L-3: 1) V1628; 2) D23/8.10; 3) V1643; 4) V1631; 5) V1650; 6) D23/10.16; 7) V1624.

L-3/a-3/d-2. Almond-Shaped Lamp with Six-Pointed Flower and Grape Clusters

Catalogue

V1658 (D23/51.10). Base and shoulder sherds; pink (5YR 7/4) fabric, reddish yellow (5YR 6/6) ext; broken.

Description: The design on this vessel is unique and has no known parallels among lamps, although a bouquet of these flowers does make its appearance in a mosaic border in the Church of Priest Wa'il (Piccirillo 1993: fig. 399).

L-3/a-3/e. Almond-Shaped Lamp with Inhabited Vine, Bird and Multiple Grape Clusters

Two lamps, one with a channel inscribed in Arabic, are each decorated with a unique version of the inhabited vine. Although the handle and part of the shoulder showing the source of the vine (pomegranate or amphora) is missing, the grape cluster is usually the next element on the shoulder, with the leaf closer to the channel and adjacent to the bird. In one case (V1643), the leaf is in the middle position with the grape cluster adjacent to the bird,³³ while in the other example (D23/8.10) there are multiple grape clusters with one cluster adjacent to the handle, a second, larger cluster of grapes formed of concentric circles with a central dot, and a leaf adjacent to the bird.

Catalogue

D23/8.10 (Fig. 9.4:2). Shoulder sherd; light brown (7.5YR 6/4) fabric and ext.

V1643 (Fig. 9.4:3; D33/51.14=TJ 1692). Pink (5YR 7/4) fabric, int, and core; white (5YR 8/1)–pale yellow (2.5Y 8/2) ext surface (Daviau and Beckmann 2001:269; fig. 6:13).

Parallels

Khirbat al-Mafjar: This variant is present in the corpus from Khirbat al-Mafjar on two lamps where the leaf or flower is in the central medallion on the shoulder of the lamp (Baramki 1944: pls. XVII:8; XVIII:3).

L-3/a-3/f. Almond-Shaped Lamp with Inhabited Vine and Oversize Grape Clusters

Three partially restored lamps and seven lamp fragments can be grouped in Type L-3/a-3 although these lamps vary greatly in appearance. The

³³ Because of this anomaly, the similarity of colour code readings, and the fact that they were assigned to the same pottery pail during excavation, sherds D33/51.14+24 are considered to be fragments of a single lamp. Because the inscribed sherd (D33/51.24) is in 'Amman and the opposing shoulder fragment is at Wilfrid Laurier University, this association was not made until 2006.

dominant decorative device includes more than one large grape cluster, along with variation in the shoulder pattern consisting of either random grapes flanking the handle or an additional grape cluster.³⁴

Catalogue

V1631 (Fig. 9.4:4; D12/28.1=TJ 185). L 9.2, W 6.6, H 2.6 cm; very pale brown (10YR 7/3) fabric, white (10YR 8/1)–very pale brown (10YR 7/3) surface; broken.

V1632 (D23/15.59+23/16.55). L 9.0, W 6.6, H 2.6 cm; pink (5YR 7/4) fabric and ext; broken (Daviau and Beckmann 2001: fig. 5:5).³⁵

Description: Two lamps from the same mould (V1631, V1632) bear a design that includes an inhabited vine with two large bunches of grapes in a 5–4–3–2–1 cluster, on either side of a 5-lobed leaf. Beside the wick hole is a small bird facing the handle. Flanking the handle is a small 4-grape bunch with long tendrils; a 5-grape cluster fills the space between this bunch and the first medallion of the vine. Both lamps have a distinctive thick ring base (almond-shaped).

Parallels

Khirbet Abu Suwana: One example of a tongue handle lamp has stylized grape clusters and small grapes flanking the handle (Finkelstein 1997: fig. 8:2); this variant with clusters hanging from the fill hole toward the outer edge is not an exact parallel to the Tall Jawa lamp but reflects the diversity in this design.

L-3/a-4. Multi-Channelled Lamps with Inhabited Vine Motif

A number of other interesting lamps also make use of the inhabited vine motif of Type L-3. These include a three-nozzelled lamp (V1650) with an Arabic inscription in the two outermost channels.³⁶

³⁴ This design is placed vertically, similar to the very small amphora design on V1624.

³⁵ New measurements yielded a slightly shorter length than that in the original publication.

³⁶ Evidence for another multi-spouted lamp consists of a sherd with a straight side that extends from the spout (D23.56.9) without curving around the fill hole. Lamp V1651, with a Greek inscription in the channel, is also multi-spouted (see Chapter 10, below).

*L-3/a-4/a. Triple-Channelled Lamp**Catalogue*

V1650 Fig. (Figs. 9.4:5, 10:1.3; D23/18.1). L *ca.* 10.0, W 8.5, H 3.0 cm; gray (2.5Y 6/0) fabric, pale yellow (2.5Y 7/4) interior and exterior surfaces; fine hard ware with very small white inclusions; inscribed, broken.

Description: This large lamp is the only one of its kind; other multi-channelled lamps appear with different designs and have only two(?) channels.³⁷ Due to the wide front end of the lamp and the additional fine ridge around the fill hole, the elements in the vine are relatively small, with the grape cluster in an inverted 1–2–3 pattern on one side, and a 1–2–1 pattern on the other. The channels themselves are separated by concentric triangles, and the central channel has three parallel lines while the outer channels are inscribed (Chapter 10, below). The base is horseshoe shaped.

Parallels

Jordan: The closest parallel is a four-nozzle lamp without provenience. Because of the additional channel, there is no room for pomegranates flanking the handle (Khairy and ‘Amr 1986: fig. 11; pl. XL:12). In this example also, the two channels without inscriptions have three parallel ridges.

L-3/a-4/b. Double-Channelled Lamps

A number of soot stained base and channel fragments indicate the presence of more than one spout on a given lamp. However, these lamps are not preserved well enough to confirm the number of wick holes, for example, Sherd D23/11.16, where there is a minimum of two channels.

Catalogue

D23/10.16 (Fig. 9.4:6). Spout+base; pink (5YR 7/4) fabric and ext; sherds.

Description: The two wick holes of this lamp are soot stained and there is a third hole on the left edge, adjacent to a small bird. A partially

³⁷ A number of multi-channelled lamps are so incomplete that their shape and design cannot be determined; three spouts, probably from the same lamp, are a case in point (D33/43.1+48.10+53.3) as is sherd C43/5.1 which has three channels.

preserved channel and wick hole lies to the right of the only complete channel. Two ridge lines on the base appear to confirm that this lamp had only two spouts. In the main channel, there is a complex diamond design with crossed lines in each lozenge. This same design appears on a single channel lamp in the Probatika corpus (Arndt 1987: photo 5:53).

Catalogue

V1624 (Fig. 9.4:7; D23/12.5). Light red (2.5YR 6/8) fabric and ext; sherds.

Description: Lamp V1624 has a wide (3.2 cm) shoulder filled with large grape clusters each containing 10 grapes, each with a seed in the centre. Flanking the nozzle is a small bird and flanking the handle is a small amphora in a vertical, rather than horizontal position.

*L-3/b. Almond-Shaped Lamp with Continuous Running Motif*³⁸

The second most common motif (L-3/b) on almond-shaped lamps with a hand-made handle is a geometric ‘continuous S’ pattern similar to a guilloche.³⁹ In one example (V1630), the shoulder is decorated with two bands; the uppermost design is composed of a series of overlapping semicircles and the lower band is a running-S design that is separated from the upper register by a wavy line. This particular lamp provides the best example in the corpus for seven other lamps of this type, probably made from the same mould.⁴⁰

L-3/b-1. Almond-Shaped Lamp with a Double Running-S Motif

Comparable to the almond-shaped lamps with the vine motif, these lamps also have three parallel ridges in the channel. So too, their fabric varies from a porous red ware to a fine crisp white ware.

Catalogue

V1630 (Fig. 9.5:1; D23/16.71=TJ 982). L 10.4, W 7.0, H 3.0 cm; light reddish brown (2.5YR 6/4) fabric, light red (2.5YR 6/6) core, pink (5YR 7/4)–white (5YR 8/1) mottled surface; restored.

³⁸ The various versions of this motif are called ‘guilloche’ in the database.

³⁹ Variant L-3/b-3 has an upper band of overlapping semicircles as in Variant L-3/b-1 along with a lower band of slightly curved wavy lines as in Variant L-3/b-2. There is also a raised line circumscribing the outer ridge of the fill hole and channel ridge, as well as an unidentified design on either side of the channel.

⁴⁰ These sherds include D23/8.11+23/15.53; D23/8.18; D23/9.16; D23/15.43+44; D23/8.6; C16/22.5+6, and 1 unregistered sherd.

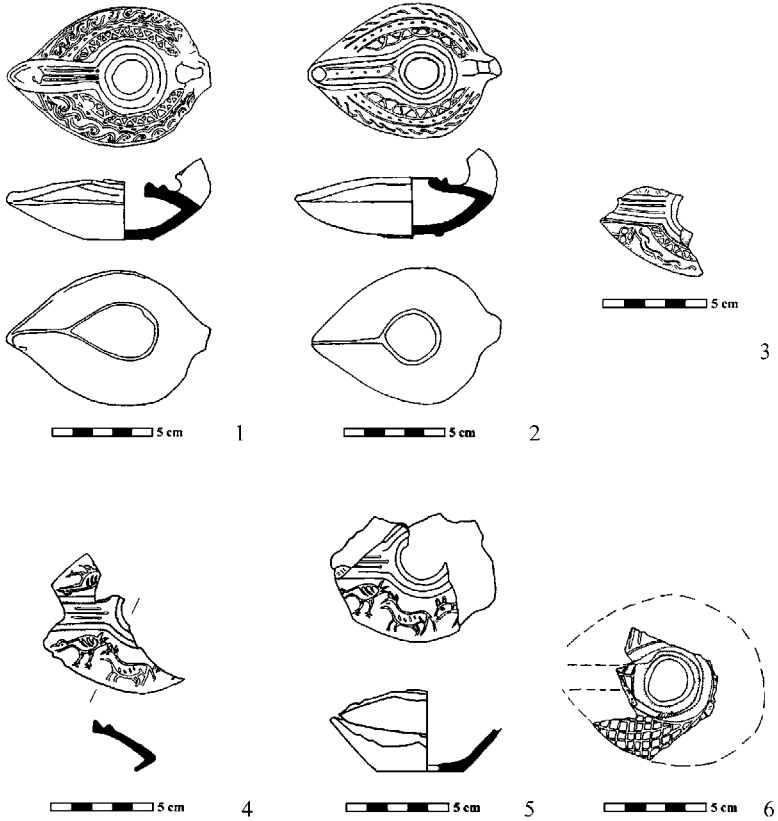


Figure 9.5. Type L-3: 1) V1630; 2) V1602; 3) D23/45.10; 4) V1634; 5) V1633; 6) D33/24.5.

Parallels

Khirbat an-Nawāfla: The upper half of one lamp and the handle and partial shoulder of a second lamp are the best parallels for V1630. Although these lamps are contemporary with an almond-shaped lamp base incised with crosses, it is assumed that they are Abbasid in date, on the basis of a small dated inscription present at the site (Amr *et al.* 2000:241; figs. 15:2–4; 17).

al-Muwaqqar: One lamp shoulder sherd in an assemblage assigned to the Abbasid period represents this pattern (Najjar 1989: fig. 6:21).

L-3/b-2/a. Almond-Shaped Lamp with Loose Running-S Motif with Rows of Dots

Variant L-3/b-2/a has an upper band of overlapping semicircles as in Variant L-3/b-1, while the lower band consists of a very loose running-S design. Also by way of contrast with other almond-shaped lamps, the foot has a circular ring base. Two Tall Jawa lamps were probably made from the same mould.

Catalogue

V1602 (Fig. 9.5:2; D22/5.1=TJ 186). L 9.6, W 6.7, H 3.1 cm; very pale brown (10YR 7/3) and light red (5YR 6/6) ext; row of dots in the channel; intact.

V1608 (D23/45.9). L 9.5, W 6.8, H 3.3 cm; reddish yellow (5YR 7/6) fabric, pink (7.5YR 7/4) exterior surface; broken.

Description: These twin lamps, probably from the same mould, show a slightly different scheme of decoration, especially in the middle of the channel where parallel ridges flank a line of dots and end in a V. This same pattern of dots continues across each shoulder above the running-S design. An unusual feature is the small size of the ring base.

Parallels

The elaborate design seen on the Tall Jawa lamps does not appear to be present at contemporary sites.

L-3/b-2/b. Almond-Shaped Lamp with Loose Running-S Motif

Slightly different from Lamps V1602 and V1608 is a single sherd that represents a variant with a pendant flower adjacent to the channel and a zig-zag band around the fill hole above the loose running-S pattern and a wavy line below it.

Catalogue

D23/45.10 (Fig. 9.5:3). Sherd; reddish yellow (5YR 6/6) fabric, pinkish gray (7.5YR 7/2) core, pink (7.5YR 7/4) exterior surface.

This lamp is the only one of its kind in the corpus and no parallels can be cited at this time.

L-3/c. Almond-Shaped Lamp with Donkey Procession

The most unusual decorative motif in Type L3 is a procession of animals, represented by Subtype L-3/c. The remains of only three lamps of this subtype have been recovered and their fragmentary nature makes it impossible to define the decoration of the entire lamp. The shoulder decoration left of the handle consists of a procession of donkeys⁴¹ proceeding towards the nozzle with a grazing bird in the lead. The dominant Type L-3 channel design of three parallel lines is used here as well. The three examples of this subtype (V1633, V1634, V1662) each represent a discrete lamp, but all were made from the same mould.

Catalogue

V1634 (Fig. 9.5:4; D23/55.3). W *ca.* 7.5 cm; pinkish white (5YR 8/2) fabric, pink (5YR 7/4) surface; broken.

V1633 (Fig. 9.5:5; D33/40.23) W *ca.* 7.5, W 8.0 cm; light gray (2.5YR 7/2), pale yellow (2.5Y 8/2) ext; sherds.

Parallels

Amman: Although this motif is rare, a close parallel was recovered in the Umayyad palace on the citadel of 'Amman and was dated by the excavator to 740–750 (Olávarri-Goicoechea 1985:24–25; fig. 24:12).

L-3/d. Channel-Nozzle Lamp with Net Design

Only one fine ware sherd can be assigned to this sub-type; clearly, this was not a prominent style of decoration used by local potters. The limited preservation suggests that this sherd belongs with the channel nozzle lamps, rather than with the candlestick lamps (L-5). A close parallel from Dhībân helps to confirm that this decorative pattern was used on channel nozzle lamps. This design certainly had a long period of use, beginning in the Late Roman period and extending through the Byzantine era (Sussman 1983:85; figs. 8:4; 9:3).

Catalogue

D33/24.5 (Fig. 9.5:6; +D33/26.17). Shoulder and fill hole; shoulder W 2.0 cm; pink (7.5YR 8/4) fabric and surfaces.

⁴¹ The best parallel for these animals is from a different medium, namely the procession of animals into Noah's ark on the mosaic floor of the synagogue at Jarash (Piccirillo 1993: fig. 547).

Parallels

Capernaum: A good example of this type of lamp with a nub handle and an overall net design was recovered in Stratum II, Building I (Peleg 1989: fig. 70:11).

Beth She'arim: Six Byzantine period lamps with an overall net pattern were located in Catacomb 20 (Avigad 1976:190; pl. LXXI:37).

Horvat Illin (Upper): Only a small fragment of this distinctive pattern was recovered (Greenhut 2004: fig. 18).

Khirbat Abu Suwana: Here too, there is only a fragment of shoulder with net decoration that Finkelstein (1997: fig. 8:4) dates to the late 8th–early 9th century.

Jerusalem Magness includes the short channel lamp with the overall net pattern in her Form 1 oil lamps, 3rd–5th centuries (Magness 1992: Form 1:4).

Khirbat al-Mafjar: The shoulder of a lamp from Khirbat al-Mafjar is completely covered with a fine net pattern (Baramki 1944: pl. XVII:9), slightly different from other examples where radial lines frame the channel.

Gadara: Among the 2000+ lamp fragments from Gadara, a fragment with a net pattern on the shoulder has been dated roughly to the early 7th–8th centuries (Weber and Hoffmann 1990: fig. 8:8).

Dhībān: The channel and part of the shoulder of a single channel lamp is well preserved, showing that the net design fills the entire shoulder (Tushingham 1972: fig. 5:47).

Umm al-Rasas: The shoulder and handle of a lamp with a net design has radial lines on either side of the handle (Alliata 1991: fig. 17.5).

L-4. TONGUE-HANDLE LAMPS

The formal differences between the Type L-3 lamps and Type L-4 is the shape of the body, and the mould-made tongue handle. In contrast to the almond-shaped body of Type L-3, these lamps have a nearly circular shape and a more convex upper body.⁴²

⁴² A tongue-handle lamp from Samaria with a badly worn shoulder decoration is described as ovoid by Crowfoot (1957c:376; fig. 89:9). While this may be technically correct, the body is slightly wider at the fill hole. In proportion, the Samaria lamp is closer to Type L-4 than L-3.

L-4/a-1. Multiple Grape Clusters and Stylized Flower

Lamps with a multiple cluster motif are included in Type L-4/a on the basis of two criteria, the body is nearly circular and there is a mould-made tongue handle. Although these lamps are decorated with a grape vine similar to that seen in L-3 lamps, the form of the individual grapes varies from the standard; on lamp V1629, each grape is formed by two concentric circles with a central dot and the inhabited vine bears a new decorative motif, that of a stylized flower or rosette.⁴³ Although the handle is missing, close parallels suggest that this lamp had a tongue handle.

Catalogue

V1629 (Fig. 9.6:1; D14/18.11=TJ 1492). L 10.0, W 7.5, H 3.8 cm; very pale brown (10YR 8/2) surface; handle missing.

Description: The unique characteristic of this lamp is the style of the individual grapes and the large size of the clusters. The design consists of a small bird, a vine which encircles a large grape cluster,⁴⁴ a stylized flower with eight petals surrounding a central circle and dot, and a second large grape cluster. Another unique feature is the presence of four parallel lines in the channel, instead of the standard three-line pattern.

Parallels

Tiberias: Although the motifs in the inhabited vine on this lamp are not identical to V1629, there is an elaborate rosette on the shoulder (Stacey 2004: fig. 6.9:1). A second lamp (2004: fig. 6.9:3) also has elaborate rosettes along with the flower seen on V1629.

Khirbat al-Karak (Beth Yerah): A shoulder sherd with a bird, stylized flower, and enlarged grapes assigned to the 'Arab' building (Delougaz and Haines 1960: pl. 44:22=60:29) is an example of the wide distribution of this type.

Beth She'arim: Among the late lamps from Catacomb 20 is one (55-196) with a similar design; the small bird, a cluster, a flower, and a cluster

⁴³ This motif becomes more common with time, appearing in linked circles on a lamp from Beth Shean (Hadad 1999: fig. 6:7), rather than in the vine scroll.

⁴⁴ Certain lamps with a larger number of grapes per bunch have clusters that measure 1.2 cm, but the clusters on V1629 measure 1.7 cm in width versus an average of 0.9 cm on lamps with the standard 6 grape cluster. In this, the size of the clusters on V1629 is comparable to that of the clusters on multi-channelled lamp V1624.

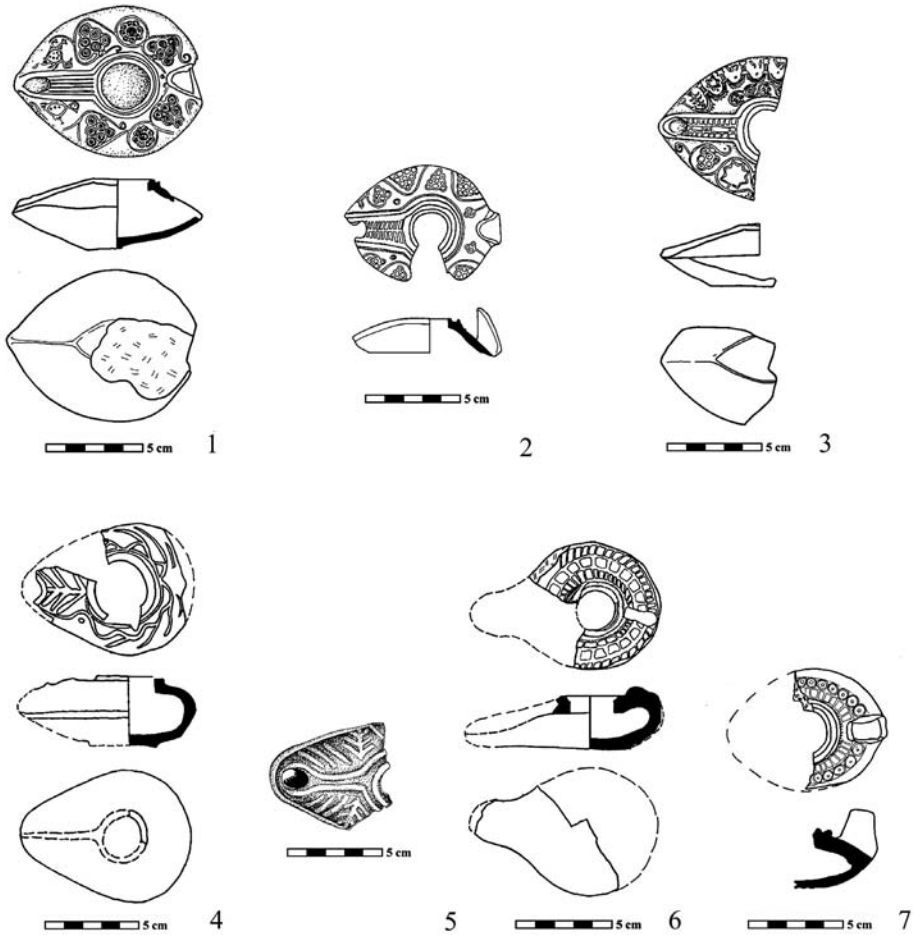


Figure 9.6. Type L-4: 1) V1629; 2) V1644; 3) V1641;
Type L-5, 4) V1601; 5) D12/8.1; 6) V1606; 7) D13/70.1.

(Avigad 1976:193; pl. LXXI:51). The grapes are closer in style to V1632, although the hatched chevron surrounding the handle is similar to lamps from the Probatia in Jerusalem.

Jerusalem: In the Probatia corpus, there are a number of lamps with clusters of enlarged grapes and the stylized flower in a variety of positions (Group IV). The closest parallel is the lamp (SA 2610) with a flower in the central position (Arndt 1987: photos 9:86, 86a; 10:91, 93); however, the channel design consists of opposing concentric triangles rather than parallel lines.

Siyâgha (Mount Nebo): Another example of a lamp with enlarged grapes and a stylized flower is represented at Mount Nebo; this lamp is similar to lamp SA 2610 from Jerusalem with opposed concentric triangles in the channel (Bagatti 1985: fig. 19:19=photo 20:5).

Dayr 'Ain 'Abata: A tongue handle lamp with large grape clusters was found with fragments of small columns decorated with a vine pattern and a cross. Although there was no firm date for the room, Politis assigned an Abbasid date to the lamps (1990:382; pl. III:3).

L-4/a-2. Stylized Grape Clusters

The lamps in Type L-4/a-2 occur in only two forms in the assemblage, although both are the same size. The presence of an extra ridge around the fill hole and nozzle of V1644 makes it clear that this lamp and a fragment with the same grape design were not made from the same mould.⁴⁵ The vine motif has been transformed and now is represented by an arched line over the grape cluster, rather than the more natural circular medallion formed by the vine and its tendrils. Certain clusters are free floating, completely outside the 'vine'.

Catalogue

V1644 (Fig. 9.6:2; D33/26.15). Shoulder with tongue handle; L 8.3, W 6.2, H (top half) 1.7 cm; yellowish red (5YR 5/8) fabric, reddish yellow (5YR 6/6) surfaces; fine hard ware with small inclusions.

Description: The most complete example (V1644) of this type has a shoulder decoration of stylized grape bunches within a rigid vine that forms arches framing each of two large grape clusters on either side of the fill hole. These clusters, with a 4-3-2-1 bunch, are inverted with the point closest to the fill hole; however, they flank a somewhat smaller cluster (3-3-2-1) which hangs in the opposite direction and is not surrounded by the vine. The vine ends at a small cluster (3-2-1) next to the channel. An even smaller cluster (2-1) on a long stem flanks the handle. In the channel is a ladder-like herringbone pattern.

⁴⁵ Apart from V1644, there is only one shoulder and channel fragment (D33/36.4+5).

Parallels

Israel: The all-grape design with clusters pointing in opposite directions appears on a lamp with a tongue handle, a double ladder channel pattern, and an extra, very fine ridge around the fill hole (Israeli and Avida 1988: fig. 460), although here the vine is relatively natural in style.

Beth Shean: The locally made example from Beth Shean is very refined and was clearly from a different mould, having small trees or branches flanking the handle (Hadad 2002:99, no. 444).

Jerusalem: The largest representation of tongue handle lamps with grape clusters hanging in opposite directions is the group of seventeen lamps in the Probatica assemblage (Group III; Arndt 1987: photos 7:71–8:78). Another example was recovered in the Tyropoeon Valley excavations (Crowfoot and FitzGerald 1929: fig. 18), and another close parallel from the tower of Sion (Bagatti 1970: fig. 12:5).

Khirbet Abu Suwwana: Slightly more elaborate in style is a lamp with an extra ridge separating the arched lines around each grape cluster (Finkelstein 1997: fig. 8:6).

Ramat Rahel: Two fragments of lamp shoulders, one with a tongue handle, have small grape clusters on stems between the stylized arches and larger clusters (Aharoni 1962: fig. 18:12, 15).

Amman: This popular lamp design also appears on a lamp (PO7857) and a shoulder sherd (PO7858) from the Umayyad Palace (Olávarri-Goicoechea 1985: fig. 24:3, 5).

Madaba: In the excavations of the late Byzantine–early Islamic building at Tall Mādabā are two fragments of lamps with small grape clusters having their apex toward the fill hole (Foran *et al.* 2004:90; fig. 11:9, 11). These lamps are assigned to the same period as the lamps with a pomegranate design, the late 7th–8th centuries AD.⁴⁶

Dhībân: One lamp has a design of vine and grape clusters in alternating positions on the shoulder (Reed 1964:72; pl. 66:7).

Udruh: Two lamp fragments represent channel nozzle lamps with the stylized grape cluster and arched vine motif (Killick 1983: fig. 13:1, 3); these lamps may be contemporary with the Umayyad rebuilding activities at the site.

⁴⁶ Of note is the fact that the elaborate painted designs on vertical-sided bowls which were found with the lamps at Tall Madaba (Foran *et al.* 2004: fig. 11:1–7) are not found at Tall Jawa, where the designs are closer in style to bowls from Amman.

L-4/b. Channel Nozzle Lamp with Two Design Styles on the Same Shoulder

This group is represented by a single large lamp with an architectural motif on the right shoulder. An inscription⁴⁷ is embedded in the single row of arches below an inhabited vine (Chapter 10, below). On the opposite shoulder, there is a vine with a grape cluster beside the channel and a large seven-pointed leaf filling the entire space from the fill hole to the outer edge of the shoulder. This is followed by a grape cluster (4-3-2-1) and a flower with seven petals. Intact parallels to this lamp have a mould-made handle, confirming that V1641 belongs to Type L-4, although it is larger than others in this class.

Catalogue

V1641 (Fig. 9.6:3; D33/47.1=TJ 1693). L *ca.* 9.0, W 7.5, H 3.4 cm; pink (5YR 8/4) fabric, white (5YR 8/1) ext; inscribed; broken.

Parallels

Israel: Two unprovenienced lamps serve as parallels, but only the lamp (76.6.1444) from the Louis and Carmen Warschaw Collection of the Israel Museum (Israeli and Avida 1988: pl. LXXXI:464) has two designs on the right shoulder (looking toward the nozzle) as does Lamp V1641.

Palestine: A second lamp with identical characteristics (910.114.202) is part of an unprovenienced collection housed in the Royal Ontario Museum, Toronto, Ontario, Canada.

Ramla: However, in the case of the third lamp, from Ramla, the arches are on the left shoulder (when looking from handle to nozzle) rather than on the right (Rosen-Ayalon and Eitan 1969: back cover, centre left).

L-5. MISCELLANEOUS LAMPS

L-5/a. Candlestick Lamps

A handful of lamps cannot be classified in Types L1–L4. For the most part, these consist of candlestick lamps without a channel linking the

⁴⁷ The motif of an arch framing an inscription appears in a more complex form in different media, for example the 8th century mosaic floor at Ramla that Rosen-Ayalon (1993:1271) suggests is a representation of a mihrab.

fill hole and the wick hole. The smallest of these lamps has a very fine radial design of close set lines; it is presented here first because it may be the earliest in our assemblage, reflecting early Byzantine period activity at the site.

L-5/a-1. Candlestick Lamp with Fine Radial Design

D2/10.2 Shoulder sherd; pinkish gray (5YR 7/2) fabric, pink (5YR 7/3) exterior.

Parallels

Jerusalem: Among the pottery assigned to Byzantine IIIA are two lamps with fine radiating lines (Tushingham 1985: fig. 32:13, 14).

Jarash: In an assemblage of 48 lamps from the hippodrome, one example with the fine radial line motif (Vine and Hartelius 1986: figs. 56a, 56b) is dated to the middle-late Byzantine period.

Amman: Among the finds from a tomb on Jabal Jofeh el-Sharqi are two lamps with a fine radial design and the hint of a channel (J. 12933); both are dated to the late 3rd-early 4th century (Bisheh 1972:81; pl. III:2).⁴⁸

Dhībān: Here also, there is only a small fragment that represents a lamp with fine lines radiating from the fill hole (Tushingham 1972: fig. 5:51).

Khirbat Abu ar-Ruzz: Among the late Byzantine sherds recovered from the slopes of this Karak plateau site is a fragment of a lamp with fine radial lines (Brown 1991: fig. 383).

L-5/a-2. Candlestick Lamp with Dot Design and Nub Handle

Catalogue

D23/18.6 W ca. 6.6, H ca. 2.8 cm; reddish yellow (5YR 6/6) fabric, pinkish gray (5YR 7/2) ext; broken.

Description: Sherd D23/18.6 represents the back half of a thick-walled lamp, nearly circular in shape. The small conical handle is adjacent to the fill hole, but does not extend as far back as the outer edge. The shoulder is divided into two registers around the fill hole, with the only decoration in the form of a row of dots.

⁴⁸ In the catalogue, lamps registered as J. 12933 are referred to in pl. III; fig. 1.

Parallels

Apamea: A lamp with a single row of dots and a relatively tall conical handle was present in the church at Apamea, Syria (Napoleone-Lemaire and Balty 1969: fig. 28:4).

Capernaum: This style of oil lamp represents the earliest form at Capernaum (Tzaferis 1989: fig. 70:1) at the very end of the Byzantine period.

Khirbat al-Karak: A channel-nozzle lamp with two rows of dots has the characteristic conical handle (Delougaz and Haines 1960: pl. 44:11=60:30).

Ramat Rahel: A lamp with a row of three dots flanking the channel and a small conical handle (Aharoni 1962: fig. 18:8) appears to be similar to this type; a second lamp has a complete row of dots from handle to nozzle (Aharoni 1964: fig. 25:9).

Tel Ira: The back half and nub handle of a mould-made lamp is assigned to the early Islamic corpus (Fischer and Tal 1999a:316: fig. 6.131:14).

Umm al-Rasas: A nearly complete lamp with a circle of large dots surrounding the fill hole has short lines along the outer edge (Alliata 1991: fig. 18:23=photo 10, right) and is a good example of a common style, related but not identical to Sherds D23/18.6 and D13/70.1 (see below).

Humayma: The upper portion of a 'Late Byzantine/Early Islamic' channel-nozzle lamp with a small conical handle and a row of dots on the shoulder is a good example of this motif (Oleson *et al.* 2003: fig. 19 B).

L-5/b. Candlestick Lamps with Branched Candlestick or Tree Motif

Mould-made candlestick type lamps with a large central fill hole, a raised line connecting the fill hole and the nozzle, and a shoulder area decorated with a tree and branch design appear in two styles at Tall Jawa, one with a tree in relief between the fill hole and the nozzle, and the second with a narrow channel (D12/8.1) flanked by trees.⁴⁹ The

⁴⁹ Acconci and Gabrieli (1994:470) and Alliata (1991:385) identify these lamps as 'a palmella,' referring to the tree design near the nozzle. Because the 'candlesticks' are upside down on TJ D12/8.1, the identification of this design as a tree seems reasonable, although at other sites, such as Mugharet Abu Halimeh, a cave at Silet edh-Dhahr north of Nablus, there were 98 lamps with either trees, footed candlesticks, or crosses

first type, represented by V1601, has undulating lines surrounding the wick hole, while the second type has straight or slightly curved lines extending diagonally around the wick hole.⁵⁰

L-5/b-1. Candlestick Lamp with Tree Motif and Undulating Lines

Catalogue

V1601 (Fig. 9.6:4; D21/7.16). Partially restored; L 8.0, W 6.8, H 3.4 cm; light red (2.5YR 6/6) fabric, pink (5YR 7/4) exterior; soot stained; broken.

Description: V1601 is a mould-made lamp with an almond-shaped body and ring base formed of a fine crisp fabric. The central fill hole measures 2.5 cm in diameter and is surrounded by a raised ridge. So too, there is a ridge around the wick hole. The design between these holes shows a tree with three diagonal branches on either side of the trunk. On the shoulders, a design of undulating lines, possibly representing spreading branches, surrounds the fill hole and loops over a dot. One branch continues to form a border alongside the seven branch design and runs up to the wick hole. Surprisingly, this design is not aligned with the central axis of the lamp. In his interpretation of this design on Lamp R 1221 from Umm al-Rasas, Alliata (1994a:281) suggests that the undulating lines represent water. These lines begin at the handle area, represented by four raised dots in a cross formation. In the case of Lamp V1601, this part is broken off.

Parallels

Silet edh-Dhahr: Among the 98 Type XV lamps recovered from the burial cave (Mugharet Abu Halimeh), only one (Sellers and Baramki 1953: fig. 55:28) of the 19 illustrated shares the twisting branch design of the Tall Jawa lamp. For Sellers and Baramki (1953:51), this design suggests the head of an animal, the semicircle and dot on each shoulder represent the eyes and the spout is the nose.

between the fill hole and nozzle (Sellers and Baramki 1953: figs 48–59). At Buṣrā, a horizontal handle has a finely detailed branched candlestick moulded onto its upper surface (Wilson and Sa'd 1984: fig. 16).

⁵⁰ Fischer and Tal (1999b:347; fig. 6.151) assign a time range of 5th–8th centuries BC for this sub-type in the Negev. Other examples with a cross in place of the tree come from Madaba (Acconci and Gabrieli 1994: fig. 38:163) and Dhībān (Tushingham 1972: fig. 14:10).

Jerusalem: This well-known style was identified by FitzGerald during the excavations of Byzantine structures in the Tyropoeon Valley (Crowfoot and FitzGerald 1929: pl. XVII:26). Other lamp fragments from Dominus Flevit have the same design (Bagatti and Milik 1958: fig. 16:32–34), as does one unprovenienced lamp purchased in New York (Rosenthal and Sivan 1978: fig. 481).

Bethany: Although not a common style, this lamp also appears in a tomb at Bethany (Saller 1957: fig. 1:2).⁵¹

Siyāgha (Mount Nebo): A lamp with the motif of a tree and entwined branches is shown in a photo along with inscribed lamps, but is not discussed in the text (Bagatti 1985: photo 23:5).

Dhībān: Only a shoulder fragment is preserved; however, enough of the design is present to see that it is a parallel for V1601 (Tushingham 1972: fig. 11:44).

Umm al-Rasas: The closest parallel is Lamp R 1221 with a ring base and a branch(?) design slightly offset from the central axis (Alliata 1991: fig. 11:12=photo 10, centre).⁵² This lamp appears to be identical to the Tall Jawa lamp and may have been made from the same mould. Alliata (1991:385) associates this lamp with those having a tree or palm motif which began in the Byzantine period and continued into the Umayyad period.

L-5/b-2. Candlestick Lamp with Tree Motif and Narrow Channel

A candlestick lamp with a tree or cross between the fill and wick holes and diagonal radial lines is a well known type in Palestine and Transjordan which is usually dated from the 6th century to the end of the 7th century.⁵³ While this type does not appear to be present at

⁵¹ Magness includes this lamp in Form 3B (item 2) along with a candlestick lamp from the monastery at Ramat Raḥel that has a different moulded relief design (1993:253).

⁵² In photo 10 on page 44, the caption does not correspond to the order of the lamps in the photograph.

⁵³ This pattern of diagonal lines extending from the fill hole to the outer edge is seen on lamps at various sites, including Jerusalem (Magness 1992: fig. 12:18, 19), Khirbat al-Karak (Delougaz and Haines 1960: pl. 44:15), Bethany (Saller 1957: fig. 16:8, 12), Hisbān (Sauer 1973: fig. 3:126, 127), Madaba (Acconci and Gabriele 1994: figs. 41:15–17; 47:33–35, 38), Dhībān (Reed 1964: pl. 66:11; Tushingham 1972: fig. 4:98, 99), Ma'in (Piccirillo and Russan 1976: pl. XXIX,1:5), and Umm al-Rasas (Alliata 1991: fig. 26:26).

Tall Jawa,⁵⁴ there is a closely related type with a tree on either side of a narrow channel.

Catalogue

D12/8.1 (Fig. 9.6:5). Front half; pink (5YR 7/4) fabric, reddish yellow (5YR 7/6) exterior and interior; broken.

Description: Because this lamp is broken near the front of the fill hole, the design on the shoulder is poorly represented. There is a pattern of diagonal ridges flanking the spout, a tree perpendicular to the channel, and what appears to be another group of diagonal ridges. The presence of a channel, narrower than the diameter of the wick hole suggests an early date in the sequence of channel nozzle lamps.

Parallels

No exact parallels for this pattern are known to this writer, although an unproven lamp does have a tree on either side of the fill hole, perpendicular to the tree which reaches from the fill hole to the wick hole (Rosenthal and Sivan 1978: fig. 481). There is also an example among the Greek inscribed lamps of small trees extending from the front of the fill hole to the outer edges, although this lamp does not have a channel (Loffreda 1990: fig. 6:29).

L-5/c. Candlestick Lamps with Geometric Design

Only two partially restored lamps fall into this sub-type, V1606 and Sherd D13/70.1, but these two lamps differ in their overall body shape.

L-5/c-1. Candlestick Lamps with Compound Geometric Design

Catalogue

V1606 (Fig. 9.6:6; D33/24.4). D 6.60, L 9.20+, H 2.50 cm; pink (7.5YR 8/3) fabric and ext; broken.

⁵⁴ There is only one sherd with widely spaced diagonal ridges (D33/43.3); unfortunately, it cannot be assigned to a specific type. This same pattern of spacing is seen on a sherd from Dhibān (Tushingham 1972: fig. 11:46) and is well represented among the lamps from the monastery of Khirbet ed-Deir in the Judean wilderness (Calderon 1999: pl. 4:1-3=figs. 3-5). These lamps have a tree between the fill hole and the spout in place of the later channel.

Description: The wall and base are relatively thick and the lamp is oval in section, rather than biconical. The shoulder design consists of rectangular and square depressions in concentric bands or registers. A sherd (D23/15.57) from a channel nozzle(?) lamp also has a geometric band around the fill hole with a row of dotted circles along the outer edge. In this example, the handle is rectangular and hand-made, similar to that of Type L-3 lamps.

Parallels

Tel 'Ira: This pattern of 'boxes' appears on lamps with a channel and a small conical handle, such as one from Tel 'Ira, along with lamps having a row of dots around the fill hole and 'boxes' along the outer edge (Fischer and Tal 1999a: figs. 6.122:1=6.132:16; 6.122:3=6.144:2; 6.122:5=6.132:17).

L-5/c-2. Candlestick Lamps with Double Geometric Design

Catalogue

V1661 (Fig. 9.6:7; D13/70.1). W *ca.* 6.5 cm; light gray (10YR 7/2) fabric, very pale brown (10YR 8/2) ext; broken.

Description: This lamp is biconical, similar in shape to Type L-3 lamps, and has the same hand-made handle. Unique at Tall Jawa is its moulded design consisting of a top register of short radial lines around the fill hole and a lower band of linked ovals, each with a central dot.

L-5/d. Lamp Shoulder Sherds with Various Designs

Only a small number of sherds fall into this category. Most notable is D13/64.4, a shoulder sherd with a very degraded pattern of horizontal lozenges, each containing a small fruit. This design is not unknown, but appears rarely in the region; a comparable pattern is represented on a tongue handle lamp from Bethany beyond the Jordan (Abu Shmeis and Waheeb 2002: fig. 16:8).

DECORATIVE MOTIFS AND THEIR VARIATIONS

The dominant motif on the Tall Jawa lamps is the inhabited vine: *a vita*, a pattern that was widely distributed, especially in central Trans-

Jordan and in the Jerusalem area. This motif also had a long history in the repertoire of the mosaic schools of the Levant. Examples of floors with a vine forming a row of medallions or scrolls have been located in Transjordan in the north, at the Chapel of Anastasius at Khirbat as-Samra and at the chapel of Qam, west of Irbid (Piccirillo 1993: figs. 612, 750), in the regions of 'Amman and Madaba (see below), and as far south as Zoara in the Ghor (Piccirillo 1993: fig. 723, 725) and Petra in the highlands (Fiema 2001:309).⁵⁵ In Cisjordan, this motif is well known in the area of Gaza, for example, in the nave of the Church of Saint Stephen at Ḥorvat Be'er-sheḥ'a in the Negev (Gazit and Lender 1993:275–276), and occurs as far north as Antioch (Dauphin 1976a: List 1).⁵⁶ The inhabited vine appears on large mosaic carpets covering the floor of a nave⁵⁷ as well as in intercolumnar panels. For example, in the space between two columns in the Church of Bishop Isaiah at Jarash, a vine grows out of an amphora/krater and forms two medallions, each surrounding a bird (Piccirillo 1993: fig. 565). So too, the broader theme of the grape harvest is popular as a motif on mosaic floors, for example in the Church of the Holy Martyrs Lot and Procopius, the Church of the Deacon Thomas, and the lower Kaianus church (Piccirillo 1993: figs. 202; 253, 263; 271).⁵⁸

Within the dominant motif of the inhabited vine, each element on the lamps appears in various forms. Most notable is the bird, which appears as a large, addorsed bird/goose(?) (Fig. 9.7:1–3), a duck or other long-necked bird looking straight ahead (Fig. 9.7:4), a short-necked bird (Fig. 9.7:5), or as a tiny bird with a very short neck (Fig. 9.7:6). The birds facing the handle appear to be walking, as they do when illustrated in mosaic pavements in the region of Madaba, especially on

⁵⁵ For a study of the Madaba school of craftsmen, their techniques and their pattern repertoire, see Foran 2003, unpublished dissertation.

⁵⁶ In fact, the inhabited vine is a design found throughout the Levant, in Syria, and in Constantinople itself (Dauphin 1976a:114). A recent study of the distribution of floors and lamps with the vine motif found a direct correlation between these two artistic media (Daviau, in press).

⁵⁷ It is interesting to note that the vine scrolls surrounding the central panel in the Church of Bishop Sergius at Umm al-Rasas appear to sprout from cornucopias held by the four seasons located in the corners; in the panel itself is a scroll of acanthus leaves (Piccirillo 1993:234; figs. 365, 369). The mosaic in the nave of the Church of Saint Stephen has a vine scroll in the central panel; however, this vine grows out of two large acanthus leaves at the west end of the floor (1993: figs. 380, 383).

⁵⁸ There is also evidence for a wine-treading scene on the badly damaged mosaic carpet in the Church of Saint Stephen (Piccirillo 1993: fig. 382).

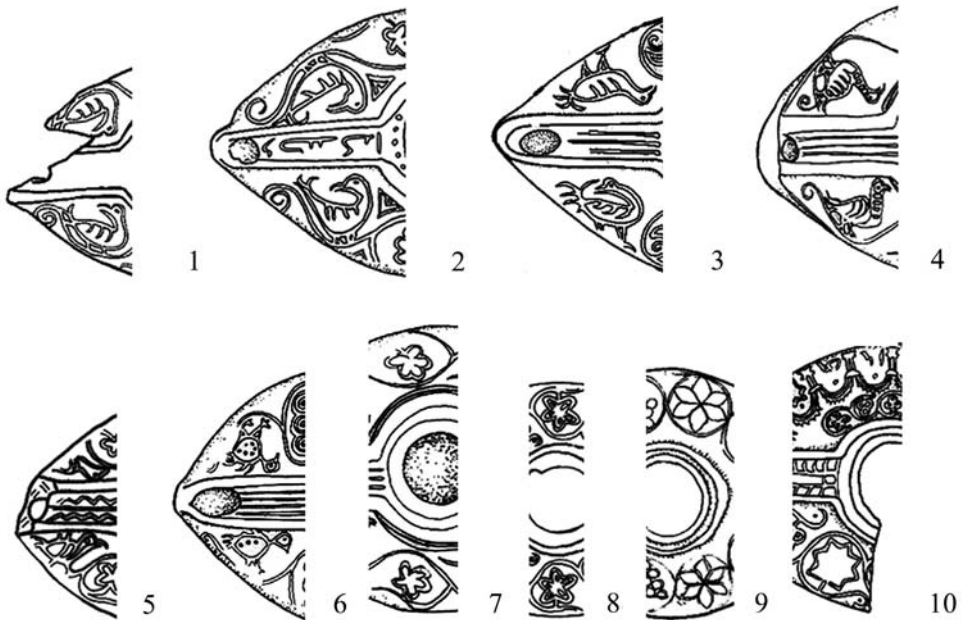


Figure 9.7. 1) Adorsed birds; 2) adorsed birds with flat back; 3) birds facing in opposite directions; 4) long-necked birds; 5) short-necked birds; 6) tiny birds; 7) 5-lobed leaf; 8) leaf in medallion; 9) stylize leaf/6-pointed star; 10) 7-pointed stylized leaf.

the floor in the Church of the Apostles (Piccirillo 1993: fig. 95), and at Petra (Fiema 1993:2). The only example of a bird bending forward to eat appears on V1634, leading the parade of donkeys, although this is not an unusual motif in other media. Birds (peacocks?) in a similar position are shown in relief on chancel screen panel (No. 31) from the church at Rehovoth-in-the-Negev (Tsafirir *et al.* 1988: ill. 170), and one of two birds bends to peck on the Madaba Mosaic of Paradise (Piccirillo 1993: fig. 137). So too, birds in the medallions on the floor of the chancel of the Church of the Lions at Umm al-Rasas are pecking at seeds on the ground (Piccirillo 1993: fig. 338). A floor with well preserved images of various species of birds is located in the chancel of the North Church at Ebus/Ḥisbān (Piccirillo 1993: figs. 429, 434), although none of these birds is eating.

In contrast to the variation among the birds, the leaf regularly has five round-tipped lobes (Fig. 9.7:7, 8), except in rare instances where a stylized leaf/6-pointed star (Fig. 9.7:9) or a large 7-pointed leaf is used

(Fig. 9.7:10). The style of the grape leaf appears to be derived from its illustration on mosaic floors, especially those that show five distinct lobes, as on the mosaic at Qam (Piccirillo 1993: fig. 746). In the floors themselves, the leaf is more varied in its appearance, for example the three-lobed leaves on the floor of the Church of the Deacon Thomas (Piccirillo 1993: fig. 252+253).

So too, the pomegranate design on the lamps is standardized and the only variant is the number of seeds indicated (Fig. 9.8:1). Pomegranate trees appear frequently in mosaic pavements, for example at 'Amman in the Chapel of Suwayfiyah, at Umm al-Rasas in the chancel of the Church of Bishop Sergius, in the late 6th century Church of the Lions, and in the nave in the Church of Saint Stephen (Piccirillo 1993: figs. 219, 331, 338, 455). This motif is also popular in the Mount Nebo area, especially in the New Baptistery Chapel, the Church of the Holy Martyrs Lot and Procopius, and the Church of the Deacon Thomas (Piccirillo 1993: figs. 197, 213, 256 and 266). The presence of pomegranates within a scroll also appears in mosaic pavements, for example on the floor of the burial chapel at Tell Ḥammam near Beth Shean (Dauphin 1976b: fig. 1; Foerster 1993:234–235).

The size of the grape cluster on the lamps is relatively standard, usually having clusters with grapes in a 3–2–1 pattern (9.8:1), except in those instances where only grapes are enclosed in the vine. In these cases, each cluster includes a larger number of grapes in a 5–4–3–2–1 or 4–3–2–1 pattern (Fig. 9.8:2, 3). Similar but not identical clusters on mosaic floors are too numerous to list here; the best example of the association of the pomegranate tree with the grape vine is found in a medallion in the Crypt of Saint Elianus at Madaba (Piccirillo 1993: fig. 127).

The amphora motif on the lamps is standardized as well (Fig. 9.8:4), except for the image on a single sherd (D12/28.3; Fig. 9.8:5). The closest parallels to the style of the amphora/krater vessel are again found on Byzantine period mosaic pavements where the vine is shown growing out of the amphora; a beautiful example can be seen in the floor of the Church of the Deacon Thomas near Mount Nebo (Piccirillo 1993: fig. 263) and in the chapels of Suwayfiyah and of Khirbat al-Kursi in the 'Amman area (Piccirillo 1993: figs. 470, 476). A similar motif appears already at the early Byzantine church of Khirbet ed-Deir in the Judean wilderness (Hirschfeld 1999: pl. III:3), and continues as late as the Umayyad period, when it is seen carved into a half-dome

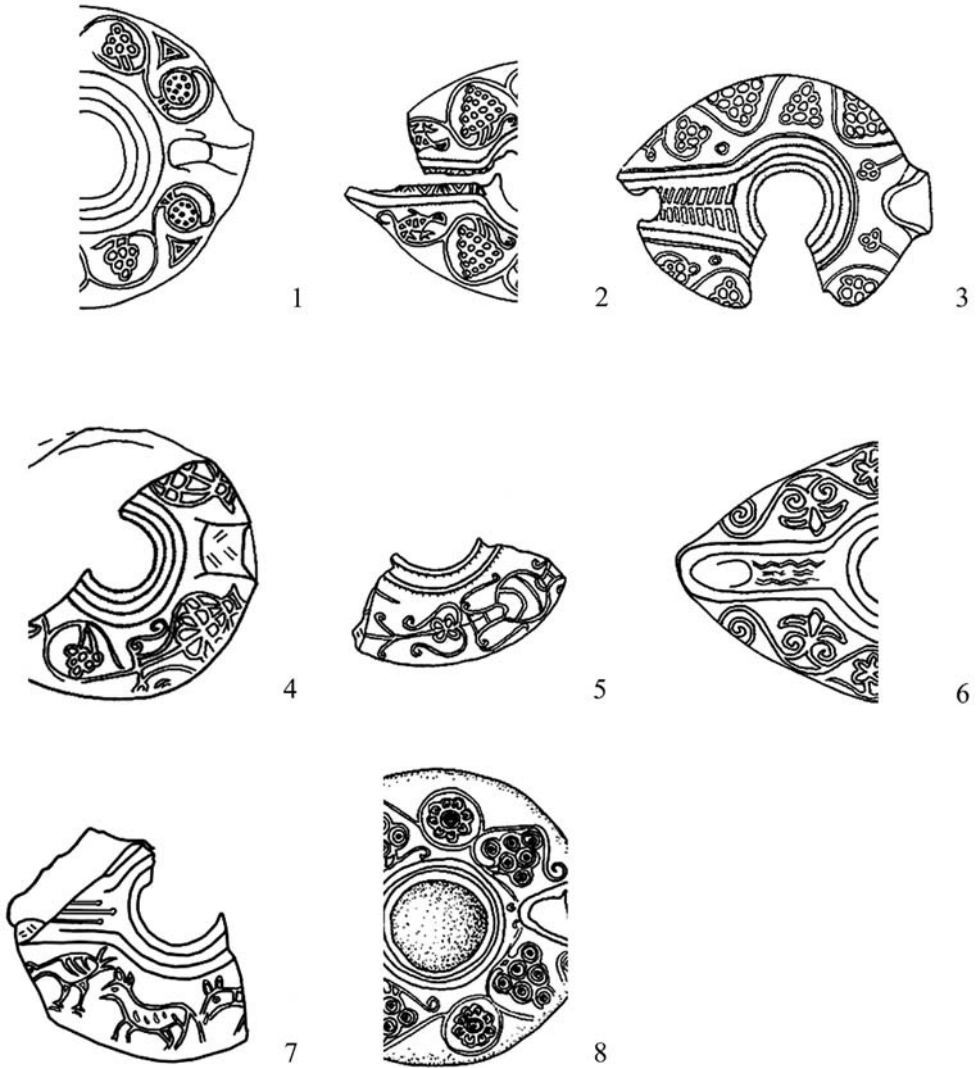


Figure 9.8. 1) Pomegranate with seeds and grape cluster design of 3-2-1; 2) grape cluster with 5-4-3-2-1 design; 3) various size grape clusters (3-2-1; 4-3-2-1); 4) amphora; 5) unique amphora; 6) palm branch/tree; 7) donkey parade; 8) stylized flower with large grapes.

at Hisham's Palace (Tall Jawa file photo; DVD).⁵⁹ Here also, the vine grows out of the vessel and forms medallions with five-lobed leaves, stylized flowers, and fruit.

Also well-known in the regional iconography is the palm tree (Fig. 8.6), a motif that appears on the Madaba map mosaic (see above) as well as on the floor of the Church of al-Khadir and in the Hippolytus Hall at Madaba (Piccirillo 1993: fig. 142, 23, respectively). Avi-Yonah (1948:151–153; figs. 27–34) illustrates various styles of palm trees or branches, which were incised, carved in relief, or painted on pots from several chronological periods (Late Bronze Age–late Byzantine period). Twelve trees are preserved in the mosaic floor of the monastery church at Khirbat Yattir near Arad (Magness 2000: fig. 7).⁶⁰ Also from this site is a ceramic lantern with palm trees chiselled between its windows (Magness 2000: fig. 11). A variant is the fleur-de-lis motif that appears only on lamp V1636. This same design appears in the arches of the stucco balustrade at Khirbat al-Mafjar (Hamilton 1948: pl. XIX).

The donkey parade design (Fig. 8.7) is also rare on lamps of the period, although it does appear at 'Amman. Animals in hunt scenes and in agricultural scenes appear individually engaged in various activities. Only the synagogue floor at Jarash has a parade of animals, although here there is considerable variety of animal pairs (Piccirillo 1993: fig. 547).

Although not common in the decoration of mosaic floors, the stylized flower (Fig. 9.8:8) is a dominant motif on the carved façade of the unfinished Umayyad palace of Qaṣr Mshatta (Enderlein and Meinecke 1993: pls. 19, 20), where these rosettes are surrounded by an overall decoration of an inhabited vine filled with birds, animals, 5-lobed leaves, and grape clusters. In certain units of the design, the vine emerges from an amphora and fills a triangular space bordered by an acanthus leaf frame (pl. 20). A variant of this design, which includes many of the same elements, is found in the stucco balustrade fragments recovered at Khirbat al-Mafjar. Here too, there is a grape vine sprouting from an amphora. Within the vine are grape clusters, five-lobed leaves, and stylized flowers. Small clusters of grapes are suspended outside the medallions (Hamilton 1948: pl. XXIII), a feature seen also on certain

⁵⁹ Photograph in the Tall Jawa collection.

⁶⁰ An earlier floor in the church depicting birds and vine scrolls may have been contemporary with the atrium inscription dated to 588/589 AC (Magness 2000:158, 162).

lamps. While for the most part these motifs were heavily utilized in the late Byzantine period, it is clear that certain elements continued into the Umayyad period, where they appear in architecture and in painting.

A second motif repeated in more than one example at Tall Jawa is the guilloche or running-S design. The lack of known lamps parallels is unusual, since this motif is a very well known design used abundantly in other art forms. The guilloche appears as a border design on a large number of mosaic floors, such as the pavement from the Theotokos Chapel at Mount Nebo (Siyagha) (Piccirillo 1993: fig. 200) and the Church of the Virgin Mary in Madaba (Piccirillo 1993: fig. 2). It also is used to surround interlocked geometric designs as seen on the floor of the Church of Saint Elianus, also in Madaba (Piccirillo 1993: figs. 131, 133).⁶¹ A single stripe with a guilloche design appears in an otherwise plain mosaic in the Church of the Nativity at Bethlehem (Richmond 1936: pl. XLVIII). There is also a small mosaic inscription at the entrance of a tomb in a funerary church near Gadara (Piccirillo 1993:328; fig. 688) which is surrounded by a guilloche.

The recognition of more than one group of lamps, each formed from the same mould, suggests the presence of a regional production centre in the area. Due to the limited excavation at Tall Jawa, it is impossible to determine the importance of this settlement and its relation to such a centre. Lamps with the inhabited vine motif had a very wide distribution, being the dominant style in the assemblage from the Probatika (126 examples), with only a handful of these lamps having a stylized vine motif. More limited is the distribution of the inhabited vine with the amphora, a motif which is seen on a number of mosaic floors (Daviau, in press), but appears on only a small number of lamps from Jarash, 'Amman, and Khirbat al-Mafjar, with an outlier at Ḥumayma. Of note is the distribution of unique mould-made designs with a limited distribution. The parade of donkeys is one such design that occurs exclusively at Tall Jawa and at 'Amman, the Umayyad capital.

⁶¹ The guilloche or running-S design differs from the interlocked guilloche of the presbyterium in the Church of the Palm Tree at Umm al-Rasas (Piccirillo 1993: fig. 393).

CHAPTER TEN

INSCRIBED LAMPS

N. J. Johnson

INTRODUCTION


A number of lamps with well-preserved inscriptions in Arabic and Greek can be studied both for their text and their prosopography (V1645, V1641, V1650, V1643, V1651). In addition, Lamp V1648 and the Jarash-style lamps in the corpus were also inscribed; however, the inscriptions on these lamps are badly chipped and barely readable (see below). For a discussion of the styles (types and sub-types), decorative motifs and fabric composition of these lamps, see Chapter 9 above.

ARABIC INSCRIPTIONS

Single Nozzle Lamps

Catalogue

Lamp V1645 (Figs. 9.2:5; 10.1:1a+b; D23/15.71=TJ 1007).

In the single channel between the fill and wick holes of this Type L-3/a-1/b-2 lamp is a two-word inscription, reading from right to left [..]  (brkh [..]), that is, Blessing.¹ The angular script is necessarily restricted by the narrowness of the channel, but the letters are clear and well formed. *Brkh* is without points or vowels and has a distinctive angular Umayyad *kāf*. The second word is not entirely clear.

Catalogue

Lamp V1641 (Figs. 9.6:3; 10.1:2a+b; D33/47.1=TJ 1693).

Lamp V1641 consists of the front half of a single spouted, almond-shaped moulded lamp with an inscription on one shoulder. Three other

¹ There may once have been script on the lamp's base, but the letters are now illegible.



Figure 10.1.1a. V1645=TJ 1007.

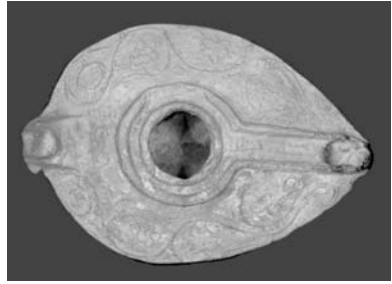


Figure 10.1.1b. V1645=TJ 1007.



Figure 10.1.2a. V1641=TJ 1693.



Figure 10.1.2b. V1641=TJ 1693.



Figure 10.1.3. Lamp V1648.

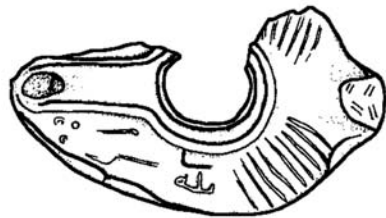


Figure 10.1.4. Lamp V1604.

Figure 10.1. Inscribed Lamps.

such lamps are known; one (910.114.202=GA.220) is in the Royal Ontario Museum, Toronto, Canada (unpublished), the other unproven lamp (76.6.1444) is in the Louis and Carmen Warschaw Collection of the Israel Museum (Israeli and Avida 1988: pl. LXXXI:464), while the third is from Ramla.²

The description which follows applies to the three lamps that have two registers on the right or lower shoulder.³ With the tongue handle to the left, the “upper” shoulder has, from handle to wick hole, an inhabited vine with a flower, a bunch of grapes, a seven-tipped leaf, and another bunch of grapes beside the channel. There are twin ladder-like motifs in the channel between the fill and wick holes. The “lower” shoulder has two decorative registers: above, an inhabited vine containing a stylised tree, a leaf, three small (3-grape) clusters,⁴ and a leaf, and immediately below, eight arches set on pairs of columns, each arch being crowned with a serrated, or dog-tooth, motif. Starting from the handle, six of the arches contain reversed, or mirror, writing; arch seven has a six-pointed star and arch eight, a stylised tree on a triangular base.

As is clearest from Tall Jawa’s fragment, arches four to six contain the latter part of the *Basmala*, that is, *الرحمن / الرحيم* (*ḥmn / ’lr / ḥm*), whilst the beginning would have been distributed amongst arches one, two and three, as, *بسم / الله / ’lr*. Although the fact has not been noted by the recorders of the Warschaw Collection, script can be seen clearly under arches three to six inclusive in the photograph of lamp 76.6.1444.⁶ In that photograph faint traces of script are visible under arches one and two, and *’lr* can be seen in arch three. The star and tree remain on the Royal Ontario Museum lamp, but only the faintest traces of script.

² V1641 was probably made from the same mould as Jerusalem lamp 76.6.1444, since all elements of the design are identical in their details and spacing on the shoulder. Israeli and Avida (1988) identify this lamp as a Khirbat al-Mafjar lamp and point out in the caption that the shoulder decoration lacks symmetry, identical to V1641. This is not the case for Toronto lamp GA 202 (ed.).

³ In this description, the order of the design is reversed from that given for Type L-3 lamps in order to better illustrate the text.

⁴ These designs are so small that it is hard to distinguish three-grape clusters from leaves; these may actually alternate within the vine tendrils.

⁵ A solidus indicates the separation of the inscription between arches.

⁶ See Israeli and Avida (1988:154, 162, 193; pl. LXXXI:464) for this poorly edited entry.

The script is angular, without points or vowels. In the first of the Tall Jawa arches, *ḥā'* is a simple oblique stroke, and *nūn* has been conflated with triangular *mīm* by way of the long downward extension. Perhaps supporting this interpretation, final *mīm* in the third arch has been differentiated by being rounded.

In the matter of the reversed script, this style is often encountered on early Islamic lamps, but there should be no rush to condemn the lamp makers for negligence in preparing their moulds. While it may be that some were at fault, it is just as likely the “mistake” was intentional. Reversed or mirror writing, as is the case here, has been practised for a long time by Jews, Samaritans, Christians, Muslims (Naveh 1998). Such usage has been part of magical practice as a ward against demons, or, perhaps, to conceal or make more difficult the reading of the text (Naveh 1998:40–43). Which of these reasons may operate here it is impossible to say.

Relative to these three lamps is another almond-shaped moulded one recovered from al-Ramla, Palestine.⁷ On the one shoulder visible⁸ are two decorative registers: the upper one has an inhabited vine containing what seem to be grape clusters, the lower has eight arches crowned with a serrated or dog-tooth motif. Some motifs in the arches are flowers; there is no mention of script.

Al-Ramla was founded by Sulaymān b. 'Abd al-Malik about 715–717 AD on unbuilt land and is a wholly Muslim city (Luz 1997:29; Rosen-Ayalon and Eitan 1969: 2nd page). The distinctive arches of this and the three lamps above, reflect the decorative arches characteristic of the vestibule of the palatial Umayyad complex of 'Amman's citadel and of the reception area of Umayyad Qaṣṭal. These are a leitmotif of other Umayyad structures and lamps of the period. Further, the lamps' trees on their triangular bases reflect the bejewelled ones in the Qubbat al-Ṣakhra (Dome of the Rock), as does a motif found on Muslim glass pilgrim vessels of the early eighth century (Raby 1999:154; figs. 32, 33). According to Raby (1999:181) amongst the conclusions drawn concerning the production of the glass containers, the Umayyads attempted to define a visual imagery for the new religion of Islam,

⁷ This lamp is in the middle row, left, of the illustration on the back cover of the catalogue, the pages of which are unnumbered.

⁸ On this lamp, the most visible double register is on the “lower” shoulder when the handle is to the left. It may be that the design is the same on both sides of the fill hole.

before such options were rejected in favour of the written word. Lamp V1641 and its sisters are surely part of that endeavour and appear to be the only known lamps bearing the *Basmala* in conjunction with so striking an architectural setting. It is of importance that, whilst the ROM and Warschaw lamps were purchased, Tall Jawa's was found *in situ*, providing a means of dating the group. Along with the pottery, this lamp belongs in the early part of the eighth century.

Catalogue

Lamp V1648 (Fig. 10.1:3; D23/15.58).

The upper half of lamp V1648 (Type L-1/c) is partially preserved with the remains of script on the lower shoulder when the nozzle is to the left. Parts of three letters are visible, the first letter could be *mām*, and the last is an isolated *wā'*.

Jarash Lamps

Catalogue

Lamp V1603 (Fig. 9.1:7; D23/15.34).

This is a very worn lamp, of which only the upper half is preserved. With the spout to the left, the remains of the word الله [A]llah is on the "lower" shoulder.⁹

Catalogue

Lamp V1604 (Figs. 9.1:8; 10.1:4; D23/20.66).

Lamp V1604 is the upper half of a lamp with the remains of the word الله [A]llah on the "lower" shoulder when the spout is to the left. *Description:* The shape and decorative layout of lamps V1603 and V1604 may be compared with examples excavated at Jarash, and identified as Umayyad. A series of parallel ridges, from the fill hole to the outer edge, flank the handle and there is script between the ridges and the nozzle. This arrangement (see Scholl 1992:79–80; figs. 12.93 and 12.101) is particularly clear on lamp V1603.

⁹ A small shoulder and base fragment (Sherd D33/40.7) also retains several letters, apparently the name of Allah. Additional mended sherds, such as D33/47.15+33/52.2, also retain vestiges of script, although in their present condition, the letters are indecipherable.

*Multi-Nozzle Lamps**Catalogue*

Lamp V1650 (Figs. 9.4:5, 10.2:1a+b; TJD23/18.1).

A partially restored three-nozzle moulded lamp (V1650) has a mirrored shoulder decoration consisting of an addorsed bird and an inhabited vine with a five-lobed leaf, a bunch of grapes, and a pomegranate. In the central channel are three parallel ridges, and between the channels are concentric triangles. There is a two-part inscription in the flanking channels between fill and wick holes and, whilst some of the lamp's forepart has broken away, enough remains to confirm the text, which is reversed, reading from left to right. Having the lamp's handle to the left, the topmost channel reads from left to right, *الهيتم* (*'lhytm*), and the lowest reads also in reverse, *بن يوسف* (*bn ywsf*), that is, al-Haytham / son of Yūsuf.

The script is angular, without vowels or points; *alif* has a curved tail and *hā'* is like two squares "riding each other" (Sharon 1999:134–135; fig. 35), distinctive of early Umayyad script. As seen on lamp V1641, the script here is reversed, and the earlier comments apply to this lamp also.

The names *Haytham* and *Yūsuf* (Nevo *et al.* 1993: Sheets MM104(1), MA4164(13) respectively) are each recorded once in the Negev collection area, but without patronyms. There are several instances of *Haytham b...*, or *al-Haytham b...*, without Yūsuf, in al-Kalbī's genealogical work (Caskel 1966: II.276–277).

Al-Haytham bin Yūsuf may have been the maker of the lamp, as is suggested for Aṣṭūrā and son of Aṣṭān (Khairy and 'Amr 1986:143–144), whose names appear in the channel of a lamp from Tall Jawa (see V1643).

Catalogue

Lamp V1643 (Figs. 9.4:3; 10.2:2a+b; D33/51.24=TJ 1692).

Another fragment comes from the top of a multi-nozzle moulded lamp (V1643), with part of an inscription in the channel between fill and wick holes. From right to left the letters are, *اصطورا و* (*'ṣṭwr' w*), that is, Aṣṭūrā and....

The name Aṣṭūrā is known from a four-nozzle moulded lamp in the Jordanian Archaeological Museum (Khairy and 'Amr 1986:143; fig.11; pl. XI:12). In the first and fourth channels between the fill and wick holes of that lamp the inscription reads, *اصطان بن / اصطورا و* (*'ṣṭwr' w / bn 'ṣṭ'n*), that is, Aṣṭūrā and / son of Aṣṭān; these names are said to

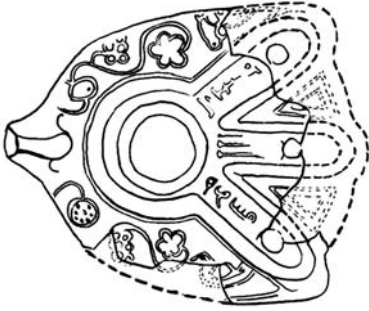


Figure 10.2.1a. Lamp V1650.



Figure 10.2.1b. Lamp V1650.



Figure 10.2.2a. V1643=TJ 1692.



Figure 10.2.2b. V1643=TJ 1692.

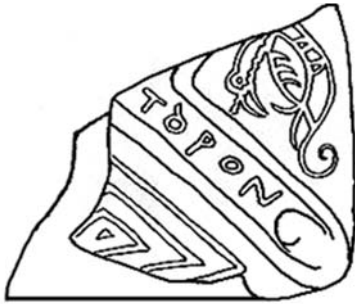


Figure 10.2.3a. Lamp V1651.



Figure 10.2.3b. Lamp V1651.

Figure 10.2. Lamp with Arabic or Greek text.

be Aramaic (Khairy and ‘Amr 1986:150–151, 143). It is reasonable to think that “son of Aṣṭān” may have been on one of the now lost channels of Lamp V1643.

On Tall Jawa’s fragment there is a forward-facing bird and bunch of grapes in an inhabited vine, while each shoulder of the Museum’s specimen has an addorsed bird, flower and grape bunch. Further, the scale of the fragment’s decoration relative to the script seems larger than the Museum’s, suggesting that V1643 might be from a two- or three-channel lamp. Although the angular letters of this lamp are clear and well-formed, they are not quite so elegant as those on the Museum lamp. If, as is possible, Aṣṭūrā and the son of Aṣṭān were lamp makers (Khairy and ‘Amr 1986:143–144), then two versions of their wares are now known. The find spot of the Museum’s lamp is unknown, as it was purchased by the Jordanian Department of Antiquities (Khairy and ‘Amr 1986:143).

GREEK INSCRIPTIONS

Multi-Nozzle Lamp

Catalogue

Lamp V1651 (Fig. 10.2:3a+b; D23/18.26).

V1651 is part of the upper front of a multi-nozzle moulded lamp. Having the nozzle to the right, on the upper shoulder is an addorsed bird and a vine tendril, which fill the corner formed by the ridge of the channel as it bends around the fill hole. Below the channel connecting wick and fill holes are three concentric triangles. In the channel, from left to right, are the clearly-formed, though not all understood, Greek letters, T A[?] P O N.

On Byzantine coins of the seventh century *delta* is often written like the queried letter (Grierson 1968:104), and it is possible for *alpha* to have that shape too,¹⁰ but neither possibility yields a meaningful inscription.¹¹ The incompleteness of the lamp is the more frustrating because such care has been taken with the lettering. This does not seem

¹⁰ Personal communication, L. Di Segni, who advised the word is unknown to her.

¹¹ Emeritus Professor Albert Pietersma of the University of Toronto suggested “...TAPON” might be construed as the accusative of a place name in a phrase like ΕΙΣ ΤΟΝ...ΤΑΡΟΝ (personal communication).

to be part of an *abcedery*; neither do the letters, and those presumed missing, seem to be part of a puzzling but recognisable text pattern, as has been proved of Greek inscriptions around the shoulders of other lamps (Loffreda 1989; Nitowski 1986, *passim*).¹² Nor do the letters suggest part of a magical formula.¹³ Nothing further on the inscription can be advanced at this time.

Description: Multi-nozzle lamps are infrequent in the early Islamic period.

Those published show fewer nozzles and, unlike earlier *polylychna*, have channels connecting the nozzles with the gutter around the fill hole.¹⁴

The introduction of channels affected the arrangement of ornament on these lamps.¹⁵ Realisation of the change can be seen in a moulded, two-wick eighth century lamp excavated at Ramla (Rosen-Ayalon and Eitan 1969, cover photo). Striated channels connect the nozzles with the gutter around the fill hole, and the principal decoration of rondels has been distributed across the shoulders and between the channels. A pair of similar but unprovenanced two-wick lamps from the same mould in the Benaki Museum, Athens, are ascribed to the 8–11th centuries (Philon 1980:25; inv. nos. 14220, 12287).¹⁶ The shoulders are decorated with arch forms and there is a resting bird between the channels.

On three- or four-wick lamps, the space for decoration is further reduced and it is of interest that concentric triangles are the interstitial motif on lamps V1650, V1651, putatively on V1643, and on that in the Jordanian Archaeological Museum (Khairy and ‘Amr 1986: fig. 11=pl. XI.12). One other example, a miniature three-nozzle lamp in the Schloessinger Collection, has “raised triangles with fruit(?)” between the channels (Rosenthal and Sivan 1978: fig. 568); it was acquired in ‘Amman by Nelson Glueck in 1939. While the lamps with this motif

¹² Father Loffreda’s opinion on the lamp was sought, but he was unable to assist (personal communication).

¹³ Palestinian, Syrian, and Christian amulets are discussed by Bonner (1950: 208–228; pls. 14–18).

¹⁴ The reduction in number of nozzles and addition of channels is not the case with multi-nozzle lamps excavated at Jarash and identified as Umayyad (Scholl 1992:77; figs. 11.89, 90, 91).

¹⁵ A rectangular, unprovenanced “early Islamic” three-nozzle lamp in the Warschaw Collection has channels which do not connect with the gutter around the fill hole (Israeli and Avida 1988:159, 193; cat. no. 453). Another example, excavated at Beth Shean, is a four-nozzle Umayyad lamp which has a gutter that embraces the fill and wick holes, however the channels extend only half the distance between nozzles and fill hole (Hadad 2002:103–105, 125; cat. no. 464).

¹⁶ The date of these two lamps is at odds with the book’s title.

are all from different moulds, it may be that the concentric triangles reflect a local style.

As a group, the Tall Jawa lamps speak to a vital and imaginative early Islamic craft industry that has been less well-remarked in the past than is its due. They contribute meaningfully to the iconography, epigraphy, and prosopography of the time.

CHAPTER ELEVEN

INSCRIBED VESSELS, OSTRACA, AND PLASTER

N. J. Johnson

INTRODUCTION

During the five seasons of excavation in Building 600, a variety of inscribed objects were recovered from both secure and contaminated loci. These items include architectural elements, artefacts, ceramic vessels, and lamps, which were inscribed either in Greek or Arabic. Although special studies of several items have already been published (Daviau and Pietersma 1994; Daviau and Beckmann 2001), this chapter includes documentation concerning artefacts and ceramic vessels with incised or painted inscriptions (for inscriptions on mould-made lamps, see Chapter 10 above).

THE GREEK INSCRIPTIONS

Inscribed Juglet (Figs. 8.8:4; 11.1:1)

The first Greek inscription discovered at Tall Jawa was incised on a sherd (IJ 138=D2:11/19.1=V618) recovered in Room 601. This sherd mended with a small jug (Daviau and Pietersma 1994: figs. 2–4) which is unique in the ceramic corpus, although it fits well within the Umayyad repertoire as a whole. The inscribed name (ΝαΟυΜα) is found in various forms in the Byzantine onomasticon. This particular form is also attested at Maresha, Mukhayyat,¹ and Umm al-Rasas (Daviau and Pietersma 1994:76). Along with the Arabic inscriptions recovered at the site, this

¹ This mosaic fragment is currently located in the basilica church at Siyâgha/Mount Nebo.

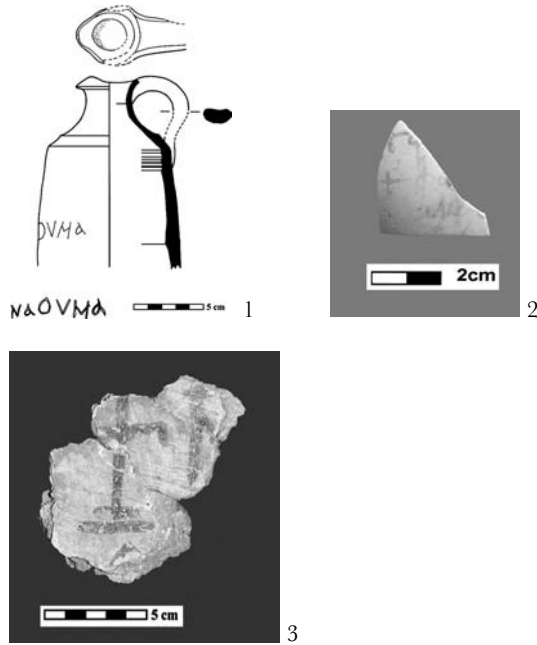


Figure 11.1. Greek Inscriptions, 1) V618, Naoumas' juglet; 2) Ostrich shell, TJ 590; 3) Painted Plaster (PP 117), with remains of cross and letters.

jug reflects the multicultural situation during the transition period from the late Byzantine to the early Islamic period in Jordan.²

Ostrich Shell (TJ 590; Fig. 11.1:2)

Scattered throughout B600 were 37 fragments of ostrich egg shell, one of which was inscribed. Fragment TJ 590 (Sh-44;³ D32:43/68) is shaped like a right-angle triangle, measuring 3.0 cm across the base by 3.2 cm to the apex. It is a very pale brown (10YR 8/4) and painted on it, in light reddish-brown (5YR 6/4), are the faint remains of Greek letters. A digital photograph of the shell revealed it to be a palimpsest, on which there are about five lines of superimposed lettering.

² For a discussion of the formal features of V618, see Chapter 8 above. In view of the thorough study of the name by Pietersma in the original publication, his analysis is not repeated here.

³ Ostrich egg fragments received shell numbers along with marine shells and fossils.

In line 1, at the apex, a long stroke connects the top of cursive *tau* with the sign to the right, which might be *stigma*. A long tail descends from the sign, ending in an upward tick to the right. This character may be considered to be on line 2. Line 3 has a cursive *tau*, then *phi*, and to its right the beginnings of another curved letter.

In the uppermost layer of line 4 are linked strokes that look like cursive *iota*, with the second letter from the left being taller than the other three. There is a scrap of paint at the right edge. Beneath and to the left of *iota* are possibly two curved letters and to their right, what looks to be a large capital *lambda*, with a serif attached to its left foot. Traces of paint at the base of the shell fragment might be a fifth line.

Dating the letters is speculative. Of *stigma*, if it is that sign, Di Segni says it was used as a mark of abbreviation in western Palestine in the fifth century AD, becoming more common in the sixth, when it sometimes took the place of a single letter without any abbreviating (1997: I.892–893).⁴ In Byzantine coin inscriptions of the seventh century AD, *stigma* continues to represent the numeral 6 (Grierson 1968:106–107). A *lambda* with a serif under the left foot appears in an early third century AD inscription from the Gaza region (Di Segni 1997: I.501–503), but the instance on Fragment TJ 590 is too faint for other than the mention of this possible comparandum.

Discussion

The residents of Tall Jawa would have been familiar with ostriches, they may have hunted them, or even seen one led by a servant, as depicted in a floor mosaic of 530 AD in the sanctuary of Moses at Mount Nebo (Piccirillo 2002a:88).⁵ Three ostriches depicted in the Umayyad mosaic floor of room 11 at Qaṣr al-Ḥallabat (Bisheh 1993:53; fig. 8) must also have been drawn from life. Ostriches were plentiful in the Arabian desert until the late 1920's, still occurred in the farther parts of the Balqā' and the eastern plains of Moab and could be found "even within two days' journey from Damascus", while their plumes were said to be plentiful in the bazaars of Aleppo, Damascus, and Smyrna

⁴ A photograph and drawing of the shell were referred to Leah Di Segni, of the Department of Archaeology, The Hebrew University, Jerusalem, who advised she was unable to make sense of the few letters visible and had "never come across a Greek inscription on an eggshell" (personal communication).

⁵ This scene is echoed in a sixteenth-century treasure in the collections of the Hofmuseum, Vienna, where a real shell is carried by a diminutive ostrich which a servant leads (von Schlosser 1908:61, fig. 50).

(Laufer 1926:2, 12, 13). Until 1935, an ostrich was kept in captivity at the Allenby Bridge, and in 1964 a dead ostrich was said to have been washed down a wadi near Karak, Jordan (Carswell 1972: II, 67). The Arabian ostrich, which seems to have been native to the region, is now extinct, but the African species, *Struthio camelus*,⁶ has been introduced at the Shaumari Reserve in Jordan (Vine 1987:75).

Since the most ancient times ostrich eggs have been incised, painted, and engraved. The collections of the Oriental Institute, Chicago, include an intact pre-Dynastic shell, probably from a grave in Upper Egypt, incised with quadrupeds and ostriches.⁷ Two intact ostrich eggs painted with geometric designs were found in Middle Bronze Age tombs P 19 and P 21 at Jericho (Kenyon 1965:409, 438; fig. 209), while the Royal Ontario Museum, Toronto, has a half-shell, probably found in Egypt, which is thought to be of Ptolemaic or Roman date. It is painted with a starburst inside and concentric orange bands on either side of the smoothed rim, and is said to have been used as a bowl.⁸

Closer in time to the Tall Jawa fragment, is the reference in a *ca.* thirteenth century Syriac manuscript,⁹ of a church at the Monophysite Monastery of Qarṭāmīn, in northern Syria, that had been the recipient of munificent gifts from the Byzantine emperor Anastasius I (491–518 AD). These included two “arbres d’airain”, the “feuilles” of which were 180 lamps and, attached to the trees’ silver chains, such bronze items as *red eggs* [emphasis added], vases, animals, birds, a cross, and crowns (Leroy 1956:78). Grabar (1956:87–88) explained the bronze trees as immense candelabras, whose branches consisted of successively larger bronze circles suspended on silver chains and whose leaves were the many lamps set into the circles. He doubted the suspended items, here in gold, silver and bronze, came as part of the emperor’s 512 AD gift, rather, that they had been gifts *ex voto* made at various times and represented a Christian conversion of the Pagan practice of offerings made to the “Syrian Goddess”, Atargatis (Grabar 1956:89–91; nn. 9, 10). He postulated that the Christian gifts were substitutes for the suspended animals, birds, pieces of clothing, and the gold and silver

⁶ The egg shell of the African species is 140.01–156.75 mm long by 121.02–138 mm wide and 1.91–1.98 mm thick (Laufer 1926:4–5).

⁷ No. 12322A, personal communication from Mr. Raymond Tindel, The Oriental Institute, University of Chicago; Kantor (1948:46).

⁸ Accession No. ROM 910.175.470; thanks to Mr. Paul Denis, Associate Curator, World Cultures, ROM, for bringing this to my attention.

⁹ Translated by Nau, referred to in Leroy 1956: n. 5; 76 ff.

objects which were incinerated on burning trees as sacrifice to Atargatis (Grabar 1956:89; n. 2).

A reminiscence of Qarṭāmīn's hanging objects may be suggested for the late fourth century mosaics in the rotunda of the church of St. George at Thessalonica, where suspended ovoid and globular shapes fringe polycandela-hung cupolas and arches (see Torp 2002: figs. 1, 4, 7). Torp refers to the spheres, dolphins, shells, and peacock plumes attached to architectural members as charged with a "sens nouveau dans le symbolisme chrétien primitif" (2002:3–4; n. 6). As can be seen most clearly in Torp's figure 7, large ovoid objects are suspended along an arch in front of which hangs a realistic polycandelon, a circle of perforated metal into which numerous lamps have been set.

In the paradisiacal structures depicted in the mosaics of the Umayyad Mosque at Damascus, *ca.* 715 AD, it has been conjectured that the ovoid objects hanging from arches and in doorways may be ostrich eggs or pearls,¹⁰ whose luminescent and numinous qualities derive from Christian and Islamic religious metaphors (Flood 2001:16–17, 40–45, 56).

Ostrich eggs were hung in churches to emphasize the bird's mythic qualities. If, for lack of parental care, an egg did not hatch it was hung for worshippers to see that their prayers might not be answered for want of a faithful vigil.¹¹ If an egg was bad, the ostrich broke it, so those eggs were hung in sacred buildings to remind the faithful that God would break them if they transgressed (Hasluck 1929: I, 233; Galavaris 1978:77; n. 32). Intact and inviolable, the shells were thought to be wards against evil and "as charms are generally held in a metal frame, not pierced for string" (Hasluck 1929: I, 232). As can be seen at the Monastery of Saint Catherine, at Mount Sinai, some ostrich shells, secured by vertical bands rather than pierced, are suspended above the lamps in the south aisle of the church (Forsyth and Weitzmann 1973: pl. LVIII). As a symbol of the Immaculate Conception, what appears to be an ostrich egg hangs above the Virgin in a late fifteenth century Italian altarpiece, for it was thought that abandoned ostrich eggs were hatched by the sun and, if that was the case, then surely a virgin could conceive with the aid of the "true sun" (Meiss 1954:95; figs. 37, 44, 45; Galavaris 1978:76, n. 30). Prosaically, ostrich shells through which

¹⁰ Pearls could be so fabulous that they were sometimes said to be as big as ostrich eggs (Flood 2001:41, n. 139).

¹¹ This from a 13–14th century AD Egyptian manuscript "referring to usage of the Coptic Church" (Galavaris 1978:74–75).

lamp chains threaded directly were unscalable deterrents to vermin that would consume the oil.

Ostrich eggs, lustres, and crystal balls hung among the lamps at the Sultan Ahmet Mosque in 1700 Istanbul.¹² In 1771, the eggs were observed hanging in a Muslim tomb about 50 miles northeast of Palmyra, and in 1833 some were seen in an Indian mosque (Laufer 1926:3–4). In the late nineteenth century the shells were hung amongst the lights at Hagia Sophia, again at the Sultan Ahmet Mosque (Lethaby 1975:255), and, at the beginning of the twentieth century, one was photographed hanging above the cenotaph in the shrine of Joseph at Hebron (Grimaldi 1912:149; pl. 6; Hasluck 1929: I, 232, n. 3).

While there is a lack of other Greek-inscribed eggs, there are inscribed eggs. Such an Arabic-inscribed one, in minute fragments, was found at a Muslim cemetery at Fustāt, possibly dated to 950–1050 (Agius 2005:366, n. 49). Part of a dated egg was found at Quseir al-Qadim, Egypt, with the remaining Arabic text giving date ranges of 1465–1475 and 1485–1495 AD (Agius 2005:366, n. 50). The greater part of another Arabic-inscribed egg was recovered from a burial site in the same area, which from pottery at the site might be dated to the early to mid-fifteenth century AD (Macklin 2006:157). Inked on the shell are a poem about the hardships of travel and a prayer for the young man whose death the inscriptions commemorate (Agius 2005:367–370). It is thought this shell originally hung from a funerary structure over the grave, as had been observed at a Quseir mausoleum by a late-nineteenth century visitor, who had seen ostrich eggs, lamps, and little boats suspended above the grave (Klunzinger 1878:104–105; Agius 2005:370–371; fig. 9).

An intact, privately-held ostrich egg has a most accomplished incised inscription. There is a band of Arabic about the shoulder and, below it, four oval cartouches of Arabic that are separated by interlaced stars and ribbons. The texts have not been translated but the work is thought to be Mamluk, from Egypt, of the mid-fifteenth century. At the top of the shell is a small neat hole through which the egg would have been extracted and into which a suspension device was likely fitted, as something has fallen inside the shell and can be heard rattling (personal observation).

¹² Recorded by the Marquis de Tournefort and quoted in Goodwin 1987:349.

In the late nineteenth century, ostrich eggs are said to have been common ornaments in the “religious buildings of the Copts, the Greeks and the Muslims alike”; hung before the altar, from the point of arches, or suspended from the roof in a metal frame (Butler 1884: II.77; I:55, 163, 281). Porcelain ostrich eggs existed also, and some with painted Muslim designs were observed in the mosque of Qayt Bay, Cairo (Butler 1884: I.343).

Ostrich eggs, egg-shaped ceramics, and coloured glass ‘witch’ balls hang amongst the lamps in the Greek Orthodox section of the Church of the Nativity, in Bethlehem (Carswell 1972: II, 63), and ceramic eggs likewise at the Armenian Cathedral of Saint James, in Jerusalem, and in the section of the Church of the Nativity (Carswell 1972:II, 67, 69). The earliest of these ceramic eggs is attributed to the second decade of the eighteenth century CE (Carswell 1972:II, 67). A number of them have painted Armenian inscriptions, dedicating the respective pieces to the church in memory of the donors (Carswell 1972:I, 85–86; pls. 24, 40–41).

Most of the foregoing comparanda ascribe religious contexts for the ostrich shells, as may once have been the case for the Tall Jawa fragment. It was found near a bronze cross in locus D23:3, in the south-east corner of Room 607, in front of Wall 6007 adjacent to Doorway EE. These two artefacts and the painted cross and partial Greek inscription found in Room 606 may be related to the building’s earlier residents.

Many ostrich shell fragments were found in the Lower Church at al-Ḥumayma, Jordan, but the excavators were unable to say whether the shells could have been attached to chains from which the church’s lamps would have been suspended (Oleson *et al.* 1992:153, 156). A shell fragment painted with red tendril designs was recovered from the “fresco” room of the site’s early Islamic qaṣr (Oleson *et al.* 1999:440).

One other purpose that may be suggested for the Tall Jawa fragment is that its inscription is magical. In appearance, the columnar arrangement of its letters is reminiscent of those painted on a piece of bone recovered from Tomb 15 at Tell en-Naṣbeh (McCown 1947:173–174; pl. 58:1A–F). That inscription is headed by a series of loops, like inverted digraphs of *omicron* and *upsilon*. Below them are four columns of capital and miniscule letters, most of which seem to be Greek, but do not form recognizable words, their decipherability being compounded by the letters’ faded state. Tell en-Naṣbeh’s inscription was dubbed magical because of its incongruent letter combinations and the fact that the bone was contained within a metal amulet case. No firm date could be

assigned to the bone as the tomb had been in use over a long period of time. A range of late Roman to Byzantine times was suggested, with the latter most probable.

The Tall Jawa ostrich shell is a remarkable and intriguing recovery and any frustration felt at the impossibility of determining its use or making sense of its few letters is diminished by the knowledge the shell was so valuable it was kept for centuries and re-worked with another text.

Painted Greek Lettering on Plaster (Fig. 11.1:3)

Sequence PP117 comprises five fragments of a painted Greek inscription recovered from Room 606.¹³ All come from near the south wall of Area A: three from soil layer D33:21 and one each from soil layers D33:17 and D33:25. Fragments PP117 and PP367 mend to form part of a cross, two letters, and a line (Fig. 11.1:3),¹⁴ with parts of other letters on discrete fragments D33:21/37.116; D33:17/26.54 and D33:25/40.291. The lettering is in weak red (10R 4/4–5/4) on pinkish white plaster (7.5YR 8/2–8/3).

About three-quarters of the cross remains. It has a short horizontal bar across the foot and a right-angled bar depending from the right arm. The stump of the left arm and a portion of the upper, vertical axis remain. At present, the cross is 5.6 cm high. If the arm is assumed to be at mid-point, then approximately half of the upper vertical axis has been lost, so the cross could have had a restored height of 7.3 cm.

The letter to the right is comprised of a vertical stroke capped with a horizontal bar, or epaulet, below which there is a short neck then a diagonal stroke to the right suggesting the remains of either capital *mu* or *nu*. This letter is now 4.8 cm high and, taking the foot of the cross as a base line, would have been about 6.0 cm high originally. The horizontal line extends from below and to the left of the cross to the break in the plaster, and beneath the line is the apex of another letter. Giving the latter a hypothetical height of 6.0 cm, the combined height of these two lines would have been about 14.5 cm. The remnant of capital *mu* on fragment PP116 is in the style of *mu* or *nu* above, and it too is assumed to have had an original height of about 6.0 cm.

¹³ Sequence PP117=D33:21/37.117; D33:21/37.367; D33:21/37.116; D33:17/26.54; D33:25/40.291. See also Chapter 5, Fig. 5:18, 19.

¹⁴ Each fragment of painted plaster was assigned a special registration number (PP1-436) in the field (D33:21/37.117 and D33:21/37.367). Complete registration information is included on the DVD.

The letters on PP54 and PP291, while of similar style, appear to be of a larger scale.

In her work on dated Greek inscriptions, Di Segni recorded changes in letter shapes and their embellishments, noting the diversity of the latter in the sixth–seventh centuries, and the ubiquity of marks of abbreviation from the sixth century on. Among the abbreviations, a horizontal line above a series of letters is often used to mark numerals (Di Segni 1997: I.885–893). There are only a few instances in her corpus of horizontal caps or epaulets on *mu* and *nu*. One early example is from northern Palestine dated 70–90 AD,¹⁵ and two Byzantine examples are recorded from Sobata (Shivta).

Two epitaphs, carved on tombstones found in the narthex of the North Church at Sobata, in the Negev, have *mu*, *nu*, and crosses bracketing the inscriptions, each with the characteristics recorded at Tall Jawa. Inscription number 335 has a horizontal line above the letters indicating the year.¹⁶ Inscription number 335 is dated 1 Xanthikos, fourth indiction, year 541 of the era of Provincia Arabia, corresponding to 22 March 646, in the fourth indiction,¹⁷ and number 336, 5 Apellaios, fifth indiction, year 541 of the era of Provincia Arabia, corresponding to 21 November 646, in the fifth indiction.¹⁸

Sobata, which is a Nabataean-Byzantine town in the central Negev has three churches and a fortified monastery either within it or in its near region. The epigraphic finds there are almost entirely of the Byzantine–early Islamic periods (Di Segni 1997: I.813). No connection between Sobata and Tall Jawa is known beyond the possible similarity in scripts.

Letters in the style of the Sobata examples, above, are found also in a red-painted inscription recovered from a church at Umm al-Rasas (Piccirillo 1987:216, 217; photo 37). A cross precedes the four rows of text, which are separated by ruled lines, and the inscription is framed in a *tabula ansata*. The height of the letters is given as 9.0 cm. A date of third-fourth century AD is suggested (Piccirillo 1989:304). The cross

¹⁵ Di Segni 1997: I.888–889; 422–427, Table 1-North, S.118. The epaulets appear on many other letters also.

¹⁶ Only a scale drawing of inscription number 336 exists, from which the translation was made and, whilst the numeral letters are unmarked, diagonal strokes and *stigma* were used elsewhere to mark abbreviations (Di Segni 1997: I.838).

¹⁷ Di Segni 1997: I, inscription no. 335, Table 15-South; II: fig. 385A; Negev 1981:51–52, no. 50; pl. 19, photo 45.

¹⁸ Di Segni 1997: I, inscription no. 336, Table 15-South; II: fig. 386; Negev 1981:52–53 no. 51, pl. 37, no. 3.

at Umm al-Rasas retains a vertical stroke at the end of one arm, but the base is in the form of a triangle.

Examples of the Tall Jawa cross are to be found at the cemetery at Khirbat al-Samra, where the numerous Christian stelae and the remarkable diversity of cross forms on them have been catalogued. Tall Jawa's cross is closest to type 169 (Couson *et al.* 1998:328; Couson and Desreumaux 1998:350), sixteen examples of which were found at Khirbat al-Samra (Desreumaux and Couson 1998:304–316). Attributing dates to the undated stelae was a difficult task and the actuarial methodology used by the cataloguers to establish termini is set out at length. Assuming al-Samra remained Christian until about 750 AD, a large number of the five thousand odd cross-inscribed stelae would have been erected in the sixth to the first part of the eighth century AD (Humbert 1998:269, 270), a time frame congruent with the Sobata and Tall Jawa temporal data.

The Tall Jawa fragments appear to be original to Room 606, showing no sign of having been plastered or painted over by non-Christian residents. It is possible, therefore, that Building 600 was originally associated with a church which may have been nearby.

It is not possible to say what the Tall Jawa inscription may have said. It could have been a biblical quotation, as at Umm al-Rasas (Piccirillo 1987:217), with the text separated by ruled lines; or it could have been a commemorative statement, with a horizontal line above letters indicating the inscription's date.

THE ARABIC INSCRIPTIONS

Ostraca

Two ceramic sherds were inscribed in Arabic, one incised (*Basmala*) and the second (40–46) inscribed in ink. Both sherds are classified as ostraca, although one (40–46=TJ 1005) may have been a notation on a ceramic vessel, rather than on an isolated sherd. Ostrakon 359, described here, is contemporary with Building 600, while inscription TJ 1005 dates to the Medieval period (see Daviau, ed., forthcoming).

Catalogue

TJ 359 (D32:8/9; Fig. 11.2:1; Daviau 1993: fig. 9).

Basmala: Ostrakon 359, which was found in Room 605, is a triangular ceramic sherd, measuring 8.5 cm at the base, 4.8 cm to the apex, and 0.5 cm thick. It appears to have been part of a jug or jar.¹⁹ The inscription was written with a sharp tool that produced very fine lines on the hard surface. Most of the letters, which range in height from 30–90 mm, are clear and well-formed, although repeated attempts were necessary to produce curved shapes. The sherd has been inverted and the text has been written from the base down; lines one and two parallel the straight edge, lines three and four parallel the right edge.

1. بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
2. اللَّهُمَّ اغْفِرْ
3. لِأَحْمَدَ بْنِ
4. مَطَرٍ

1. *bsm 'llh alr[h]mn [alrhym]*
2. *'llhm 'ghfr*
3. *l'ḥmd bn*
4. *mṭr*

1. In the name of God, the Merciful [the Compassionate]
2. Oh God, forgive
3. Aḥmad son of
4. Maṭar

The script is angular, without points or vowels. Initial *alif* with a hooked tail, and the equally distinctive shapes of *mīm*, *ghayn*, *fā'*, *hā'* and *dāl*, are to be found in inscriptions from Rehovoth and Sinai (Sharon 1993a: figs. 1–4). The “stacked” appearance of *hā'* of Allahumma may be compared with two similar instances in an early Umayyad inscription from Bayt Jubrīn (Sharon 1999:135; fig. 35). In “Maṭar”, *tā'* is composed of a right-angle triangle and following vertical stroke, rather than the more usual rectangle with following vertical (e.g. Sharon 2004:31,

¹⁹ Because the ostrakon is currently in the National Museum in 'Amman, the translation and interpretation of the text have been made from a photograph and field drawings.

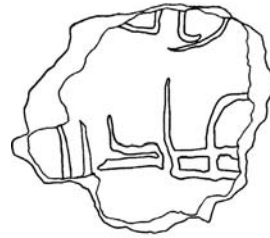


5 cm

1



2a



5 cm

2b



3

Figure 11.2. Arabic Inscriptions, 1) Ostracon TJ 359; 2a, b) Painted plaster (PP 428) with incised letters; 3) Painted plaster (PP 210) with incised letter.

no. 6; Nevo *et al.* 1993: Sheet HL4909(28)). The inscription is Umayyad, and can be dated to the early eighth century.

On the ostracon, *بِسْمِ* of the first line, as well as the second line are carefully centred on the fragment's long edge, while the placement of lines three and four can be accounted for by the sherd's curvature and increasing narrowness. The script is bold and the words well-spaced, comprised of letters ranging in height from 50–90 mm. In contrast, the letters remaining in the text of the first line, *الله الر [ح] من* are small, 30–45 mm in height, and poorly executed and spaced, which might

account for the missing ح . It has been suggested that a portion of the sherd broke off at the end of this line, taking with it the missing [الرحيم]. Had all of the *Basmala* been intended originally, there was room for it on line one, without much reduction in script size; الله ال [ح]من is an afterthought, perhaps some other person's endeavour and should be considered inscription number two.

This request of God is similar to the thousands of such inscriptions, datable to the first two centuries of Islam (Hoyland 1997:78) and known of, for the most part, from the "arid zones of northern Arabia, the Negev, Jordan and Syria" (Hoyland 1997:90). Those from the Negev collection area are thought to cover a period somewhat before AH85/704AD to about AH170/786AD (Nevo *et al.* 1993:4). The inscriptions have a notable homogeneity in their use of a standard Arabic which often shows a knowledge of the Qur'ān; the same angular or Kufic script and a stock of common words and phrases (Hoyland 1997:90–91).

Most of the persons named in the inscriptions are unknown from literary sources. Many who scratched these inscriptions on loose rocks or rock faces may have been "semi-nomadic or nomadic peoples, able just to write their name and a few basic phrases," continuing the practice of the Thamudic or Safaitic speakers in these lands before them (Hoyland 1997:92). Several Safaitic and pre-Islamic occurrences of the name Maṭar are known (Harding 1971:551; Winnett and Harding 1978:611), as are early Islamic instances recorded by the encyclopaedist Hishām ibn Muḥammad al-Kalbī (Caskel 1966:404). One instance of Maṭar occurs in the Negev collection area, in the name Maṭar bin Uthmān (Nevo *et al.* 1993:134, Sheet HL4909 (28)).

Baramki records seven inscriptions from Jabal Tubayq and Wadi Rum that begin with a request for God's forgiveness, texts which he dates to the ninth century AD. Some of these discoveries "were found side by side with Thamudic inscriptions" and were thought to be the work of passing caravans (Baramki 1951:22). His text no. 10, which is on a loose piece of basalt, may have been left by such travellers.

Some Jordanian examples of petitions to God have been recorded at Qaṣr Mshash, "May God forgive..." (Bisheh 1989:84; pl. 2c); Qaṣr al-Hallabat, "Oh God forgive your servant..." (Bisheh 1980:75), and Qaṣr al-Kharrāna (Imbert 1995:404–406, 409, 411, 412). It is not known whether Tall Jawa's ostrakon was the work of a resident or a traveller.

GRAFFITI

There must have been a considerable amount of Arabic graffiti in Room 606 and Central Hall 607, as their remains, in form of scratches and black lines on the plaster indicate. For the most part, only individual letters have been identified, either on single or on mended fragments, but the frequency of the letter *hā'* (هـ) suggests that *Allāh* was often written. The clearest examples are noted below.

Incised Letters

Fragment D33:17/26.428 (Fig. 11.2:2) was found in front of arch D33:18 in Room 606 and is the most substantial graffito recovered, with the remains of two lines of deeply scored text.

1. [د]ن ال [..]
2. [ط]لى [..]

The first line contains part of a name, "...son of al-..."; the second is uncertain. Line one's distinctive *alif* with back-swept tail (ا), and line two's *lām* with a box-like *ya'* beneath it (ي), are clearly paralleled in an Umayyad inscription from Rehovoth (Sharon 1993: fig. 2), so PP428 is assigned to the same period.

Fragment D33:24/39.210 (Fig. 11.2:3) from Area B of Room 606 has the remains of painted and incised letters. The best preserved letter (هـ), is scratched into the plaster, and looks like a triangle supported by a short stalk.

What appear to be the remains of deeply-scored letters can be seen on D23:03/32.429 recovered from the Central Hall.

Painted Letters

Sequence PP404²⁰ found in the Central Hall has what appear to be the last letters of [Al]lāh, painted in black on a white background. This Sequence and scraps of graffiti from Room 606²¹ are illustrated

²⁰ Sequence PP404 = D23:3/17.404, D23:03/17.414.

²¹ Sequence PP404 is the largest fragment in the figure. About it are from Room 606; from the left: D33:17/26.43; D33:17/26.426; D33:25/40.236; D23:3/17.408; D33:17/26.50; D22:31/43.29; D33:16/32.64; D33:17/26.45.

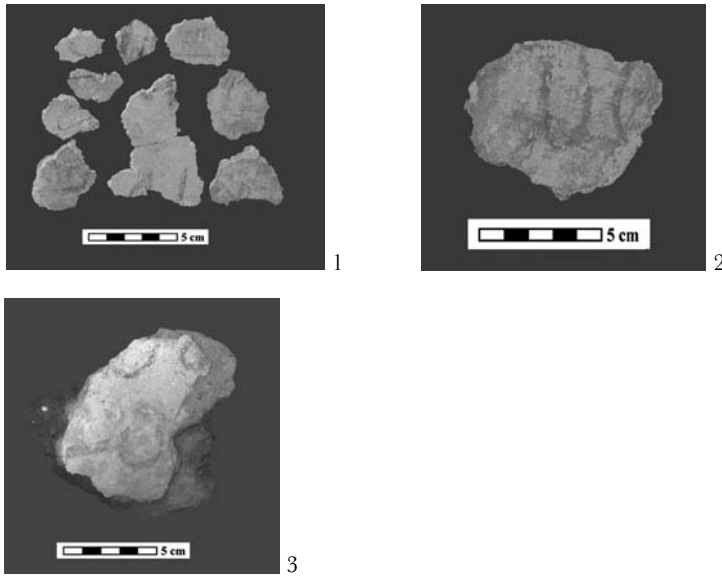


Figure 11.3. 1) Painted Plaster (PP 404), remains of the word Allāh; 2) Painted Plaster (PP 27), black-painted script; 3) PP 215, graffiti.

in Fig. 11.3:1. The bold, black lettering on D33:17/25.27 (Fig. 11.3:2) and D33:24/39.215 (Fig. 11.3:3) were found in Room 606.

CONCLUSION

The presence of Umayyad graffiti inside a building deemed to have been inhabited in the Early Islamic period is not unique. According to Imbert's analysis of painted and scratched inscriptions found in the *Qaṣr al-Kharrāna*, many were made during that building's active life. Some may have been the work of delegates to the periodic political meetings for which the building is thought to have been used, and others by seasonal visitors, as the building fell into desuetude (Imbert 1995:415–416). It is of interest that in spite of the notable architecture and decoration of Room 51 at the *Qaṣr al-Kharrāna* (Urice 1987:32–33), that is where most of the inscriptions are to be found (Imbert 1995:415). A lesson to take from Imbert's observations may be that the presence of graffiti does not automatically indicate a building's abandonment, rather, it may point to its less frequent use and this, in turn, may be supported by other archaeological data.

CHAPTER TWELVE

THE ARTEFACTS FROM BUILDING 600

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INTRODUCTION

The number of objects and samples reported from late Byzantine and Early Islamic sites is few when compared with the number studied in final reports of Iron Age sites.¹ Although the repertoire of artefacts from Building 600 is limited, it is important to begin the process of not only identifying these finds, but establishing their classes, types, and sub-types. Based on the system developed for the Iron Age artefacts at Tall Jawa, this report will first classify the artefacts in functional classes, and, where possible, in types within each class.²

The principal classes recovered from Building 600 include personal possessions, tools of daily life, natural resources, and luxury items. This study is based on the standards set by several final reports of sites that date to the Byzantine period, especially those concerning the churches of Palestine and Transjordan, such as Capernaum (Tzaferis 1988), Khirbat al-Karak (Delougaz and Haines 1960), Mount Nebo (Saller and Bagatti 1949) and Umm al-Rasas, as well as the synagogues of Galilee, namely, Khirbet Shema' (Meyers *et al.* 1976), Gush Halav (Meyers *et al.* 1990), and Meiron (Meyers *et al.* 1981).

¹ Even for Iron Age sites, reports devoted exclusively to the study of small finds are few (for example, Daviau 2002; Mazar and Panitz-Cohen 2001; Riis and Buhl 1990; Gilmour, in press, a study of objects from Gezer from several chronological periods). For later period sites, the list of small finds by Clark and Bowsher (*et al.* 1986:264–269) from the North Theatre at Jarash, and the typology of small finds from the late 4th–early 6th century Roman villa of San Giovanni (Simpson 1997) are useful resources.

² In the catalogue presented below, each object is identified by its registration number (TJ 359) along with its registration information (Field:Square/Pail#, measurements [L(ength), W(idth), T(hickness), H(eight), D(iametre), and int Dpt(depth)], and special features.

Table 12A. Artefacts at the Department of Antiquities of Jordan.

TJ 359	Kufic ostrakon	Daviau 1993: fig. 9
TJ 1036–1070	Copper coin hoard	Daviau 1994: fig. 16

Of special note is the paucity at Tall Jawa of industrial equipment and food processing tools, such as mortars, pestles, upper and lower millstones, and hammerstones, with the exception of several Iron Age tools which may have been in secondary use. Only one badly worn fragment of a basalt rotary millstone (TJ 441), itself in secondary deposition, can be assigned with certainty to post-Iron II use at the site. In similar fashion, there are no high-status containers, textile production tools, or heavy weights, although the presence of bitumen and sulphur does suggest some type of industrial activity.

A division of finds between the Department of Antiquities and the Tall Jawa Project was held at the end of each season, and the most complete objects (artefacts) were selected by the Department of Antiquities for the National Museum in 'Amman. The remaining artefacts, along with broken objects, geological samples, and faunal material, were transferred on permanent loan to Wilfrid Laurier University and are housed in the Near Eastern Archaeology Laboratory.

ARTEFACT CORPUS

I. ADORNMENT

I-A. JEWELLERY

Function: Artefacts classed as jewellery are those items which are used for personal adornment, especially those that can be put on or around the body. Such objects are made of a variety of materials and vary considerably in size. In the Levant, jewellery was worn during life and after death. The number of items included in this class is small, with the result that only one pendant, a few beads, earrings and bracelet fragments can be tentatively assigned to the late Byzantine–early Islamic occupation.

I-A/1. Pendants

One bronze cross was recovered during excavation and its designation as a pendant is tentative, since small crosses of this size may have had other functions (see below, Religious Symbolism).

*I-A/2. Beads**I-A/2-a. Stone Beads*

The most popular stone used for beads during the Bronze and Iron Ages in the Levant was carnelian. In view of its find spot in Room 603, one such bead (TJ 2058), described previously along with other carnelian beads from Tall Jawa (Type I-A/2a-2, spherical stone beads; Daviau 2002:35; fig. 2.10.2), can also be presented here in relation to the activities of the inhabitants of Building 600.

Catalogue

TJ 2058 (Fig. 12.1:1; D21:17/8). Carnelian, light red (2.5YR 6/6); D 1.10, H 1.10, int D 0.15 cm; complete; Bead Type I.C.1; Beck 1981.

I-A/2-b. Faience Beads

Two beads, both gadrooned (Beck Type A.3.e; 1981:25), are in the shape of short barrel beads. The smooth-sided tapered hole and the uneven banded shape indicate that these beads were formed by winding a strand of molten glass around a tapered shaft. The finished bead would then slip off easily after cooling.

Catalogue

TJ 835 (Fig. 12.1:2; D23:0.5/6). Faience bead, D 1.6–1.8, H 1.0, interior D 0.4–0.6 cm; iridescent blue-green colour.

TJ 930 (Fig. 12.1:3; D23:1/9). Faience bead, D 1.6, H 1.1 cm, interior D 0.4–0.9 cm; iridescent blue-green colour; broken.

*I-A/3. Earrings**I-A/3-a. Oval Earrings*

Criteria: It is difficult to distinguish a ring from an earring, when both types of jewellery are corroded and broken. One oval circlet (TJ 1188) might in fact be an earring, since it appears to have a clasp.

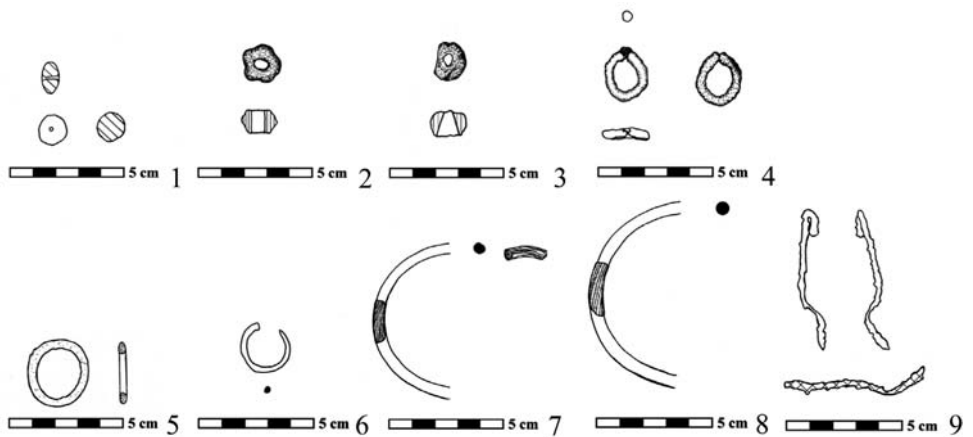


Fig. 12.1. Beads, 1) TJ 2058; 2) TJ 835; 3) TJ 930; 4) TJ 1188; Rings, 5) TJ 1458; 6) TJ 1985; Bangles, 7) TJ 127; 8) TJ 334; Pin, 9) TJ 1223.

Catalogue

TJ 1188 (Fig. 12.1:4; D33:9/20). Bronze; L 2.30, W 1.84, T 0.4 cm; corroded.

Description: This oval ‘ring’ appears to be wire-wrapped, with a thinning at the top on one side, and what appears to be the clasp or chain link on the other. The features which suggest that it was an earring are its oval shape and the presence of the clasp.

Parallels

Dhībān: Among the jewellery from the Byzantine tombs are two bronze wire earrings, one with its ends looped together and a second with open ends (Tushingam 1972: fig. 28:2, 18).

I-A/3-b. Rings

Although the classification of object TJ 1985 as an earring is possible, comparable objects from the Byzantine period are identified as rings. In this case, the pointed tip of one end is preserved, a feature characteristic of earrings; however, the second end is broken, with the result that it cannot be used to confirm this identification.³ Both rings and

³ Because this object was associated with both Umayyad and Iron Age ceramics, it was originally published with the Iron Age artefacts from Building 600 (Daviau 2002: fig. 2.25:2) as a ring.

earrings can be open⁴ with tips ending in points. TJ 1985 and TJ 1458 are both classified here as rings.

Catalogue

TJ 1458 (Fig. 12.1:5; D13:21/57). Oval bronze ring; L 2.8, int L 2.2, int W 1.8, T 0.30 cm; complete (Daviau 2002: fig. 2.25:1).

TJ 1985 (Fig. 12.1:6; D21:17/7). Copper/bronze; D 2.3, T 0.2 cm; one end preserved; broken.

Description: Ring TJ 1458 was formed of round wire, slightly flattened on one side, but without a bezel. The primary distinction between TJ 1458 and TJ 1985 is that the former is heavier and there is no break in the ring. Rings used for other purposes, such as chandelier rings, are typically larger in size (3.0–5.6 cm in diameter), comparable to those from Gush Ḥalav (Meyers *et al.* 1990: pl. C:1, 2).

Parallels

*Khirbet Shema*⁴: Although slightly smaller in diameter, several iron rings are complete circlets (Meyers *et al.* 1976: pl. 8.3:4, 5). A bronze ring (1976: pl. 8.3:6), similar in size to TJ 1895, also serves as a useful parallel for such jewellery in the Late Antique period.

Khirbat al-Karak: Among the jewellery finds from Tomb 3, there are four bronze rings, each *ca* 2.0 cm in interior diameter (Delougaz and Haines 1960: pl. 45:15–18).

I-A/4. Bangles

Criteria: Bangles are circlets that decorate either the wrists (bracelets) or ankles (anklets). Since it is not always possible to distinguish one from the other when found within occupation layers, these items are considered as a single group. A bangle is a type of bracelet, usually made in one piece of solid material. It may be continuous or there may be a break where the two ends meet. Bangles were made of wood, bone, glass, bronze or stone. Since many items identified as bangles are incomplete in the archaeological record, it is not always possible

⁴ A bronze ring with a bezel and one broken or unattached end from Tomb 3 at Khirbat al-Karak (Delougaz and Haines 1960: pl. 45:13), as well as a number of rings from Sardis (Waldbaum 1983: pl. 49:853–855), are examples of this feature.

to be certain that these fragments were not in fact part of a bracelet that had a joint or hinge.

I-A/4-a. Glass Bangles with Round Section

Although glass production can be documented as early as Vth dynasty Egypt, glass artefacts were rare until New Kingdom and Hurrian technological developments effected changes in the industry during the mid-second millennium BC. It was these changes that significantly increased production of glass artefacts (Moorey 1985:200–201). Crowfoot noted the difficulty in dating glass bracelets found in Levantine sites. For example, several fragments of black glass found in topsoil at Samaria were initially identified as pieces of a glass bangle fragment dating to the Iron Age. However Crowfoot (1957a:419–420) dated the bracelets found in the excavation of the narthex of the Church of St. John the Baptist to the Byzantine period. Glass bracelets, usually not twisted, were common in Roman period tombs (Baramki 1932: pls. V:16; VI:8–10), and continued to be produced throughout the Byzantine and Umayyad periods (Ilfé 1934: pl. XXIV:1, 2).

Catalogue

TJ 127 (Fig. 12.1:7; B63:0.5/4). Glass; coil twisted; dark blue (*ca.* 5PB 3/8); D 7.0–8.0, T 0.50 cm; fragment.

TJ 334 (Fig. 12.1:8; C64:1/4). Glass; coil twisted; very dark blue (*ca.* 5PB 2/6); D 8.5, T 0.6 cm; fragment.

These bangle fragments came from topsoil and have no secure dating, although they were probably associated with the late Byzantine–early Umayyad occupation on the tell. A cross-section of bangle TJ 127 indicates that it was solid glass, twisted in a Z-spin. When placed on a diameter board, its external diameter measures *ca.* 8.0 cm, a size that would be suitable for an adult as opposed to a child.

Parallels

Von Saldern's note (1980:98, n. 2) concerning the rarity of published glass bracelets remains true today. Both fragments (TJ 127, 334) fall into the common problematic situation of being surface or topsoil finds without sealed stratigraphic context.

Sardis: Blue glass bracelets at Sardis are dated to the Medieval period, *ca.* 10th cent. AD (von Saldern 1980:100). TJ 127 falls within the size range of those known from Sardis (6.00–9.00 cm), while its

thickness (0.50 cm) is in the lower range (0.40–1.00 cm) assigned to Sardis bracelets (von Saldern 1980:98).

Capernaum: A fragment of a twisted glass bracelet in House H comes from Stratum II (AD 850–950; Tzaferis 1989: fig. 72:52). Since such bracelets are known from earlier and later centuries, they were apparently manufactured over a considerable period.

Khirbat al-Karak: An intact twisted glass bracelet with a diameter of 6.6 cm was recovered from Tomb 4 located to the west of the church (Delougaz and Haines 1960: pl. 46:11).

Bethel: A twisted glass bracelet found in Grave A was dated by the excavators to the Byzantine period (Albright and Kelso 1968: pl. 46:15).

Tall al-Umayri: Nine pieces of glass bangles were registered by the Madaba Plains Project from Tall al-Umayri and the Regional Survey. One bangle (Object #8), assigned an Iron Age date (Platt 1989: fig. 20.6), was recovered from Site M16 in the Random Survey and may be a surface find. In her later discussion, Platt (1991:258) notes that “such bangles are typical of the Roman and Islamic periods.”

Wādī ath-Thamad: A fragment of a blue glass bracelet (WT 708) was recovered at a cemetery site (WT-112) that produced Nabataean–early Roman pottery (Wādī ath-Thamad Object Register). This find and its parallels indicate the problem of dating for the Tall Jawa bracelets, due to the lack of a Roman period settlement at the site. As a result, we can associate such finds with the inhabitants of Building 600.

I-A/4-b. Glass Bangles with Triangular Section

One fragment of a glass bangle with a triangular section appears to be a style that continued throughout the Medieval period, when bracelets with elaborate patch and trail glass inlays become the norm. Three such fragments have been recovered from grave contexts at Khirbat al-Mudayna ath-Thamad (MT 808–6/2=G9:1/3; MT 809–6/3=G9:1/3; MT 2445=E99:0.5/34 [MT registry]) southeast of Madaba, while the best collection from a large cemetery are those from Tell el-Hesi, Israel. The bracelets were either of blue/green, brown or black glass and the surface was striated with yellow, pink, blue, black or white glass fused to the core (Toombs 1985:102–103; Eakins 1993:61; pls. 91, 92).

Catalogue

G46 (Sample 91/5; A24:1/2). Glass bangle; dark blue (*ca.* 5PB 4/10); T 0.7 cm; fragment.

I-A/5. Pins

Criteria: Roll-headed pins have a straight shaft ending in a point and a folded or rolled head. Similar to Iron Age needles in shape (Daviau 2002:201), these pins are represented in the late Roman period at Sardis where they were made of a copper alloy (Waldbaum 1983:111; pl. 42:659–666).

Catalogue

TJ 1233 (Fig. 12.1:9; E54:32/131). Iron; L 6.10, T 0.10–0.30 cm; bent and corroded (Daviau 2002: fig. 2.155:1).

I-A/6. Cosmetic Dishes

Criteria: The well known Iron Age limestone cosmetic mortars were no longer in use in the Late Antique period. However, shell dishes appear to continue in use. One such dish, an *Aspatharia rubens*, was recovered almost intact in the collapse of Room 605. These fresh-water animals are found in the Nile River and their shells have been recovered at more than 20 sites in Palestine and Transjordan (Reese *et al.* 1986).

Catalogue

TJ 463 (Fig. 12.2:1; D32:12/29). *Aspatharia rubens*; L 10.0 cm; chipped (Reese 2002:287; fig. 4.1:6).

Parallels

Egypt: One cosmetic dish with a small bone spoon, dating to the Old Kingdom, is on display in Saal VI, Case III, while a second shell dish, also from Egypt, is in Saal VIA at the Kunsthistorisches Museum in Vienna (personal observation, July 2007).

Nessana: Along with an assemblage of bone and metal objects from the Byzantine period, Nessana yielded nine *Aspatharia rubens* (Colt 1962:66).

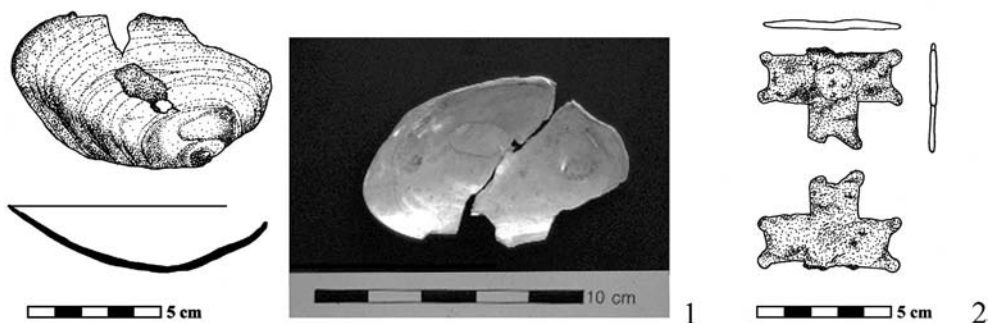


Fig. 12.2. Cosmetic dish, 1) TJ 463; Bronze cross, 2) TJ 1104.

II. ARTISTIC AND RELIGIOUS SYMBOLISM

II-A. BRONZE CROSSES

Although bronze crosses were common objects in the late Byzantine period, only one was recovered from undisturbed debris sealed against Wall 6007 in the southeast corner of Central Hall 607. The cross is broken but has three arms preserved. The arms are of equal width and length, and at each corner there is a small rounded protrusion or 'jewel'.⁵ In the centre of the cross, there is a metal disc which appears to have had an attachment, now lost. The shape of the cross is similar to the stamps impressed on bowls dating to the late Byzantine period; good examples of such bowls are found at Nessana (Baly 1962: pl. LIX, C:1-7) and Tel 'Ira (Fischer and Tal 1999a: fig. 6.139:8, 10). Because of its condition, it is not possible to determine the exact function of the Tall Jawa cross, although its size and the fact that there are no suspension loops suggests that it could have been a pendant.

Catalogue

TJ 1104 (Fig. 12.2:2; D23:3/32). A cross with equal arms; H 3.8+, W 5.5, T 0.17-0.42 cm; one arm missing.

⁵ The addition of small circles or beads at the two corners of each arm of the cross also appears on architectural elements, such as a lintel reused in the Umayyad palace in Jerusalem (Ben-Dov 1982:237).

Parallels

Ḥorvath Ḥesheq: At the church of Ḥorvath Ḥesheq in the Diocese of Sepphoris, two bronze crosses, both *ca.* 10.0 cm in size, were inlays in small columns found near the altar (Aviam 1990:358; fig. 8).

Luzit: A burial site in the Shephelah yielded two bronze cross pendants, one is Maltese style, while the other is more ornate with each arm ending in a circle (Avni and Dahari 1990: fig. 10, left).

Ma'ale Adummim: A bronze cross from the monastery is part of a chain and hook which may have held up a polycandelon (Magen 1993:194–195). A circular bronze polycandelon with a fragment of chain and cross was also reported from the Byzantine levels at Beth Shean (FitzGerald 1931:42; pl. XXXVII:4).

Beit 'Anun: Bronze crosses of various styles are found at numerous sites with Byzantine period occupation, especially at sites with one or more churches (Magen 1992:43). Two cross pendants from the crypt of the third church at the site each have five incised circles, one in the centre and one on each branch (Magen 1990: figs. 12–13).

Kfar Dikhrin near Beth Govrin: Along with a group of glass vessels and two mirror plaques, a small bronze cross was recovered from a barrel-vaulted tomb dated to the 5th century (Rahmani 1964: pl. 15:A).

Nessana: Pectoral crosses in both bronze and silver are representative of this object class (Colt 1962:53; pls. XXII:26; XXIII:8, 9), although their proportions vary somewhat from the Tall Jawa cross.⁶ The silver cross with thin arms has close parallels to pendants from Dhībân (Tushingham 1972: pl. XXXVI:32) and Jerusalem (Crowfoot and FitzGerald 1929: pl. XX:27).

Ostrakine (north Sinai): A bronze cross attached to a bronze lamp as a handle also has jewelled tips (Oren 1993:311).

Mukawir: During the Department of Antiquities' excavations of a church at Mukawir, a bronze sceptre in the shape of a Maltese-style cross with jewelled tips on all four arms was recovered (Piccirillo 1993: fig. 416).

Madaba: An inscribed votive cross with arms that flare out gently from the centre is more elegant than TJ 1104, although this cross also has jewels or beads at the corners of each arm (Humbert and Desreumaux 1986:250; no. 328).

⁶ Closer in style is a bronze cross that was part of a hanger for a three-handled lamp (Colt 1962:54; l. XXII:22).

Umm al-Rasas: Several bronze crosses, one with a glass paste inset, were found in association with the burials under the sacristy of the Church of St. Stephen (group I) and in a tomb in the Courtyard Church (group III; Alliata 1991: fig. 9:I, 3, 18; III, 1).

Egypt: Among the 'Coptic' cast bronze objects in the Royal Ontario Museum is an incense burner in the form of a vertical-sided bowl on 8 short legs. The rim supported four Maltese-style crosses, one of which is missing. Each cross has a loop at the top, where it was suspended by a chain (Hayes 1984:120–121; fig. 190).⁷

III. COMMUNICATION AND EXCHANGE

III-A. OSTRACA

Two ostraca were present in Building 600; the text of Ostrakon TJ 359 was scratched on the interior surface of a potsherd post firing (Chapter 10) and was contemporary with Building 600, while Ostrakon TJ 1005 consists of numerals written in ink on the exterior surface of a thick-walled sherd. From the text, it appears that Ostrakon TJ 1005 can be dated to the early 16th century (for discussion, see Johnson, forthcoming).

III-B. COINS⁸

Criteria and Function: Thirty-eight coins were found during the excavation of Field D, three were isolated finds and the rest were part of a hoard of copper Post-Reform coins (see Walmsley, Chapter 13). Two random coins are presented here in chronological order. The first line contains the coin's full identification, including the catalogue number, locus, general date, and denomination. The second line is a description of the obverse and the third line a description of the reverse. This is

⁷ Two bronze processional crosses, also from Egypt, both have arms with flaring ends adorned with beaded terminals. These crosses are jewelled, with incised circles (Hayes 1984:196; figs. 334, 335).

⁸ This study of the coins is the work of N. J. Johnson.

followed by the issuing power and date (if these are identifiable), the metal, size and weight, and standard parallels.

The following is intended as a catalogue of the random coins found in Field D between 1991 and 1993; for coins from other chronological periods (see Daviau, ed. in preparation).

III-C/1. Byzantine-Early Islamic Coins

Catalogue

TJ 476 (Fig. 12.3:1; D32:20/35) – Byzantine; 1, *Half Follis*.⁹

obverse Very worn, two standing figures in military dress, facing; at left Heraclius, at right Heraclius Constantine; a cross is between their heads and a long cross to Heraclius' left.

reverse K, with part of a star or cross above

To left, A / N / N / O

To right, xx

Between K's 'feet' is the twin cross monogram of the class G countermark.

Constantinople, ca. 641 CE

Heraclius, 5 October 610–11 January 641

Bronze– ↑ –25 mm–7.7 g

Grierson 1968: 2/1, 53–60, Table 8; 302–303, pl. 14:118a.4, 118c.1

Commentary: The coin is an overstrike, with traces of the earlier die remaining at the right margin of the obverse. On the reverse, the countermark's depression is deepest by the K's 'front foot'. Countermarks on Byzantine coins are uncommon and said to be limited to those of the seventh century. They are recorded on folles, with isolated specimens occurring on half folles. Some countermarks are known to have been struck in Cyprus; "anywhere else in the Near East" is said to be possible, with Syria, Lebanon and Palestine being the most probable regions. The double cross monogram of the G countermark should possibly be attributed to Heraclius' sons, Heraclius Constantine or Heraclonas, as it "occurs only on Heraclian folles of Years 20ff". The Tall Jawa specimen must be considered somewhat uncommon (Grierson 1968:2/1:53–60, Table 8).

⁹ First identified correctly by M. Beckmann in 1994.

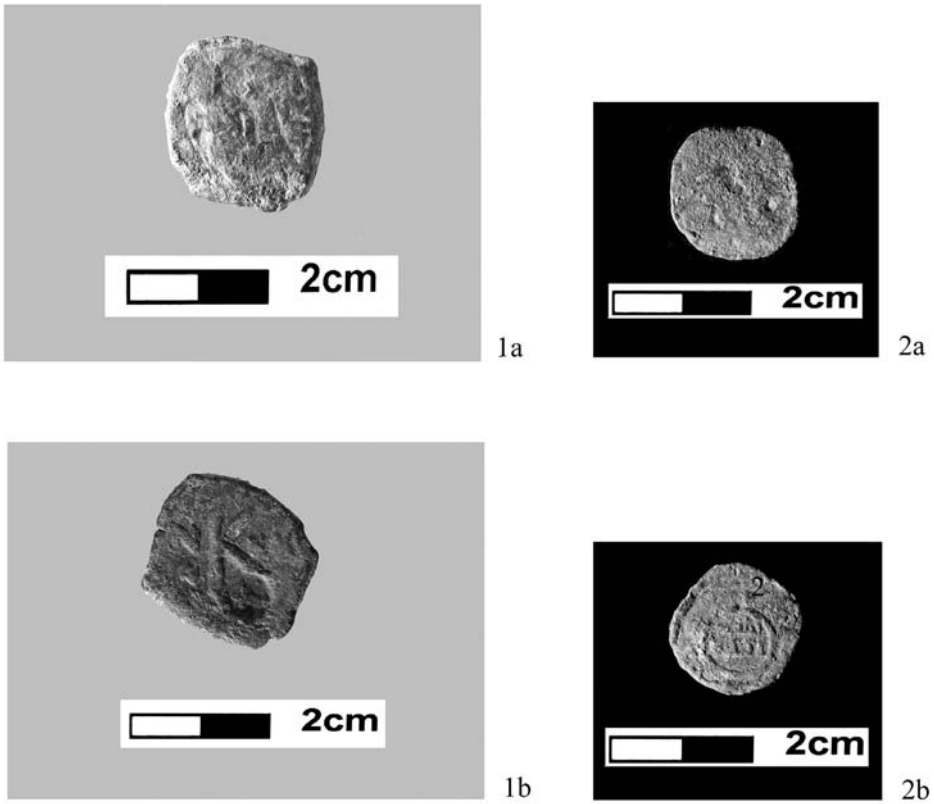


Fig. 12.3. Coins (a, obv, b, rev), 1) TJ 476); 2) TJ 371.

Catalogue

TJ 371 (Fig. 12.3:2; D31:6/13) – Islamic; 1, *fals*.

obverse Obliterated

reverse Within two concentric circles, **بِسْمِ اللّٰهِ** (Bismi / Allāh). Outer circle is beaded, inner is plain with a break at top centre above which is a star (?). Between the circles, at the top right, there is a faint trace of script.

Umayyad, post-reform, after AH77/698AD;

Bronze, has been silvered-D 18 mm–3.1g

Walker 1956: I, liii, viii, 201–289.

Commentary: As with Walker catalogue nos. 611, 630 and 936, coin TJ 371 has been silvered. Although this coin is smaller and not matching in inscriptions, the relative proportions of its reverse circles are like those on two undated *fulūs* minted in Ḥalab, catalogue nos. 789

and 793. The coin appears to lie within either of Walker's copper types "(a) With Religious Formulae only (with or without symbols)" or "(b) With Mint-name (with or without date)."

IV. STORAGE

IV-D. JAR STOPPERS

IV-D/1. Ceramic Jar Stoppers

Ceramic jar stoppers appear in two forms; in the shape of a mushroom cap or as reworked sherds.

IV-D/1-a. Ceramic Mushroom-Shaped Stoppers

Criteria and Technology: Two stoppers formed from thick reworked Byzantine pithos sherds were located in Room 603. In both cases, a base sherd was used, and the resulting shape is that of a large mushroom cap with a short stem. TJ 163 has been worn smooth on the broken edges, whereas TJ 168 is still relatively rough on the edge.

Function: Among the pithos sherds recovered from Building 600 is a large base sherd (D21/9.1), which provides a good example of the type of jar sherd that would be most suitable for reworking into a stopper. When the edges are trimmed, the thick base serves as a plug for jars which have a neck size of 9.0–11.0 cm.

Catalogue

TJ 163 (Fig. 12.4:1; D22:4/6). Intact stopper; D 9.0–9.5, H 4.0 cm; red (2.5YR 5/8) ext, yellowish red (5YR 5/6) in; 481.5 gm; reworked.

TJ 168 (Fig. 12.4:2; D22:4/6). Intact stopper; D 11.5, H 5.0 cm; reddish yellow (5YR 6/6) ext, red (2.5YR 5/6) int, gray (N5/) core; 659.6 gm; reworked.

Parallels

Although unfired clay stoppers of this shape appear already at the Iron Age winery at Gibeon (Pritchard 1959: fig. 6:16–19), no such stoppers are known from the Iron Age buildings at Tall Jawa. Thus it appears

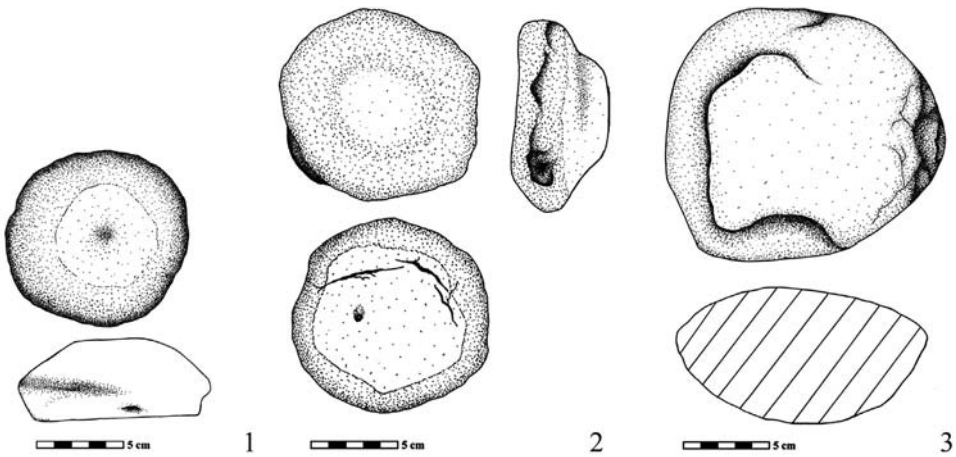


Fig. 12.4. Jar Stoppers, 1) TJ 163; 2) TJ 168; 3) TJ 322.

that the stoppers were formed of sherds from nearly contemporary vessels, although ceramic stoppers of this type are rarely reported from Byzantine or early Islamic sites.

IV-D/2. Stone Jar Stoppers

Criteria: Certain natural stones were probably used as stoppers, as well as limestone discs fashioned expressly for that purpose.

Catalogue

TJ 322 (Fig. 12.4:3; D32:0.5/1). Limestone stopper; D 16.0, H 8.8 cm; Wgt 3.094 kg.

Parallels

Amman: A large stone stopper which covers the mouth of a Byzantine period pithos is on display in the National Museum on the 'Amman Citadel.

V. FIXTURES

V-A. FASTENERS

V-A/1. *Iron Nails*

The iron nails recovered in Building 600 all have square shafts and rounded or squared heads. Their corroded condition makes accurate measurements difficult, but they are similar to nails found in contemporary buildings at other sites.

TJ 431 (D32:17/30). Iron nail, L 6.5 cm, Shaft T *ca.* 0.7 cm, head D 1.8 cm.

TJ 730 (Fig. 12.5:1; D22:0.5:19). Iron nail, L 8.7 cm (broken short), shaft T *ca.* 0.6 cm, head D 2.5 cm.

TJ 731 (Fig. 12.5:2; D22:19/25). Iron nail, L 10.5 cm, shaft T *ca.* 2.0 cm, head D 2.3 cm.

TJ 758 (Fig. 12.5:3; D22:20/27). Iron nail, L 13.5 cm (bent), shaft T 0.7 cm, head D 2.4 cm.

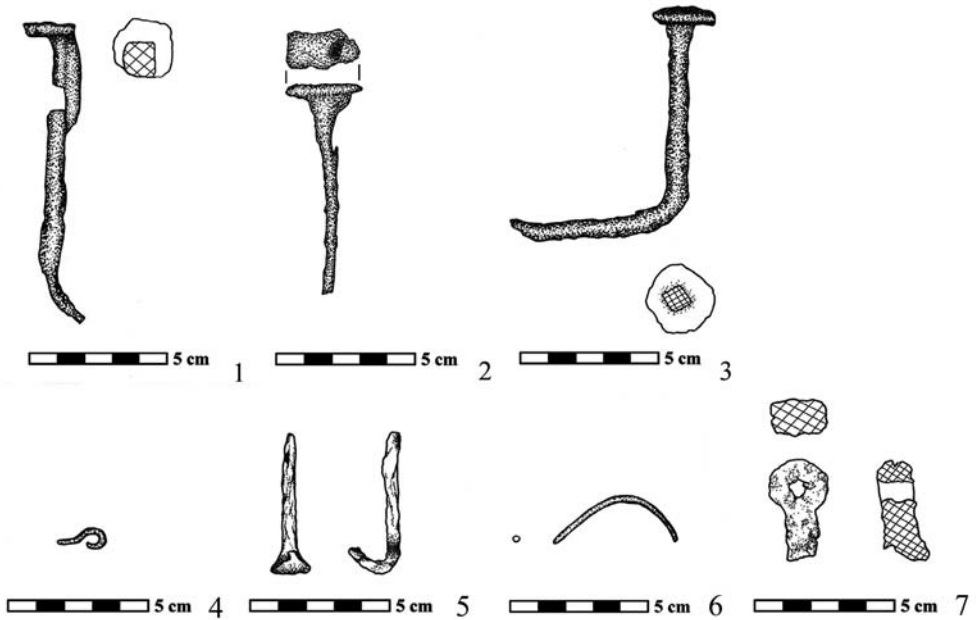


Fig. 12.5. Nails, 1) TJ 730; 2) TJ 731; 3) TJ 758; Hooks, 4) TJ 1010; 5) TJ 242; 6) 1888; 7) TJ 245.

TJ 805 (D32:43/68). Iron nail fragment, L 3.0 cm, shaft T *ca.* 0.5 cm, head rectangular 1.6 × 1.0 cm.

TJ 1208 (D32:31/44). Iron nail, L 5.8 cm, shaft T *ca.* 1.1 cm; head missing.

TJ 2023 (D21:20/10). Iron nail, L 6.1, shaft T *ca.* 0.9 cm.

Parallels

Meiron: Meyers *et al.* (1981:149; pls. 9.1, 9.2) suggest that the bent, square shaft nails were forged locally and were used with thin wooden beams to frame doorways.

Cafernaum: An iron nail, square in section, dates to Stratum V (AD 630–650; Tzaferis 1989: fig. 72:14).

Khirbat al-Karak: The iron nails recovered from the church vary in thickness from 1.0 to 2.8 cm with flat or hemispherical heads (Delougaz and Haines 1960:48; pl. 48:5, 6).

Jerusalem: Three nails, each with a square shaft, represent the various sizes recovered during excavation of the area of Dominus Flevit (Bagatti and Milik 1958: fig. 36:34–36).

Buṣrā: Isolated nails are present at numerous sites, such as the nail from Buṣrā (Wilson and Saʿd 1984: pl. IX:2), but are rarely discussed among the artefacts.

Bayt Ras-Irbid: One nail, 16.00 cm in length, is reported along with two post-reform filūs (Melhem 1994: fig. 13).

Jarash: Nails of various sizes, including a group of large iron nails (Clark *et al.* 1986: pl. XXX:2), were recovered from 4th–8th century fill layers.

Jbeyha: Of five nails published by the excavator, two have square heads and one has a thick shaft (Mhaisen 1976:22).

Uyun Musa: Among the small finds from various loci are a number of nails, which all have a square shaft and a flattened head (Alliata 1990a: fig. 8:110).

Petra: A number of nails, some straight and others bent, were recovered in the Petra Church complex (Kanellopoulos 2001: fig. 54). Such nails provide evidence for wooden fixtures and for the wood used in the roof.

*V-A/2. Hooks**V-A/2-a. Small Hooks*

Bronze hooks were used as part of numerous fixtures and hangers, especially on chains and supports for glass lamps. Those lamps with a beaded or plain stem were designed to be supported in a polycandelon (Hanfmann 1960: fig. 12; Gawlikowski and Musa 1986: fig. 10; pl. VIB).¹⁰ Two good examples of this type of lamp holder were recovered in the excavations of the church at Khirbat ad-Duwayr (Melhem 1998: figs. 22, 23). Another style of hanger with three-hooks was used to suspend three-handled glass tumbler lamps, a number of which were recovered at Tall Jawa. Only one small hook, possibly from such a hanger, was recovered from the debris in Hall 607.

Catalogue

TJ 1010 (Fig. 12.5.4; D23:3/18). Bronze; L 1.8, W 0.9, T 0.3 cm; corroded.

Parallels

Sardis: In the extensive early Byzantine metal corpus, Waldbaum illustrates a polycandelon and several triple chain hangers that were used to suspend glass tumbler lamps and censers. In both types of hangers, there are various components, including three chains, the small hooks linking these chains to the polycandelon disc, and the ring at the top which itself is connected by a series of rings to a long hook. Similar components, as well as elongated metal pieces, are parts of hangers for three-handled lamps (Waldbaum 1983:101; pls. 38:589, 591–592, 600; 39:601). Hooks and chains are also useful parallels (1983: pls. 28:435–437; 29:444–446).

Sepphoris: One nearly complete polycandelon holder, located outside the synagogue at Sepphoris, along with its hangers, is shown in a reconstruction with stemmed glass lamps (Weiss 2005:302; figs. 1–3).

Shelomi farm (Galilee): Among the debris of the Phase B occupation (617 AD) was apparently a 4-hook bronze lamp chain suspended by a small hook at the top (Dauphin 1993:46).

¹⁰ Glass lamps continue to be used in modern times; a metal disc ringing a column in the Synagogue of Ben-Ezra in Old Cairo supports 10 bowl-shaped lamps, each with a knob base (personal observation, June 2007).

Horvat Hesheq: A bronze 3-hook lamp holder with two of the three glass tumbler-lamp handles in place (Aviam 1990: fig. 21) was located on the floor of the church's nave.

Jerusalem: An interesting collection of glass lamp handles and stems accompany chains and small hooks in the assemblage from the "House of the Menorot" (Hadad 2003: photo II.34).

Nessana: A number of small hooks were components of a variety of objects, including crosses and lamp hangers (Colt 1962: pl. XXII:15, 22, 29).

Jarash: Small hooks of the type found at Tall Jawa are components of chains for lamp holders such as those from the Church of Bishop Isaiah (Clark 1986: pl. XVI:31) and the Church of Bishop Marianos (Gawlikowski and Musa 1986: fig. 10; pls. VI:B; VII:A).

Uyun Musa: Alliaat illustrates one of the long hooks that supports a handled lamp along with a short hook that attaches to its adjoining supports (1990a: fig. 8:108). A handled tumbler lamp was also recovered at the monastery of Deacon Thomas north of Mount Nebo.

Petra: A collection of small hooks, large hooks, and sections of chains from polycandela were recovered in the debris which had collapsed in the Church when it burned (Kanellopoulos 2001: fig. 53; O'Hea 2001: fig. 4).

V-A/2-b. Medium and Large Hooks

Catalogue

TJ 242 (Fig. 12.5.5; A24:0.5/0). Iron hook; L 5.0, W 1.4, T 0.6 cm; corroded; broken.

TJ 1888 (Fig. 12.5.6; D31:24/63). Flat copper wire; broken.

One other corroded hanger is only partially preserved and cannot be assigned a specific function.

Parallels

Sardis: Thin wire hooks and chains dated to the early Byzantine period are useful parallels (Waldbaum 1983: pls. 28:435–437; 29:444–446).

Nessana: Examples of this style of hook can be seen on a lamp hanger dated to the 7th century since they had fallen into debris above the latest preserved surface (Colt 1962:52; pl. XXII:30).

V-A/3. Hangers

Criteria: Certain bronze lamp hangers have solid bars rather than chains or simple wires. Usually there are three bars attached at the top to a central hook and at the end they form a heavy ring.¹¹ Only one such eye ring with a short section of the bar was found at Tall Jawa.

Catalogue

TJ 245 (Fig. 12.5.7; D12:12/24). Iron; L 3.70, D 2.15, T. 1.43, int D 0.55; corroded; broken.

Parallels

Nessana: Along with a variety of other styles of lamp hangers is a three-bar hanger complete with its top hook (Colt 1962: pl. XXI:16).

V-B. FURNISHINGS

V-B/1. Wick Holders

Criteria: A wick holder is a flat strip of metal, bent at both ends; the proximal end is designed to loop over the lip of a glass tumbler or stemmed lamp, while the distal end hangs down into the oil and is bent to grasp the wick. In most cases, the metal is lead or leaded copper.¹²

Catalogue

TJ 1151 (E54:32/123). Copper fragments; max L 1.5, W 0.5 cm; 5 pieces.¹³

TJ 1187 (Fig. 12.6.1; D33:9/20). Copper(?) fragment; max L 1.4, W 0.6, T 0.12 cm; broken.

¹¹ Another type of holder, designed for stemmed lamps, was in use in the central church at Rehovot-in-the-Negev (Tsafirir *et al.* 1988: ill. 26) and at Nessana (Colt 1962: pl. XXII:23).

¹² Four fragmentary examples were assigned to this class, one is an unregistered copper sample from the floor of Room 606 (D33:27c:53).

¹³ Originally classified in the Iron Age database as Stratum-VIII furniture fittings due to their apparently secure stratigraphic position, these fragments may have been in secondary deposition due to the activity of small animals. Their fragmentary condition makes accurate identification difficult, although they most closely resemble the intact wick holders from Umm al-Rasas (Madaba Museum, case 4).

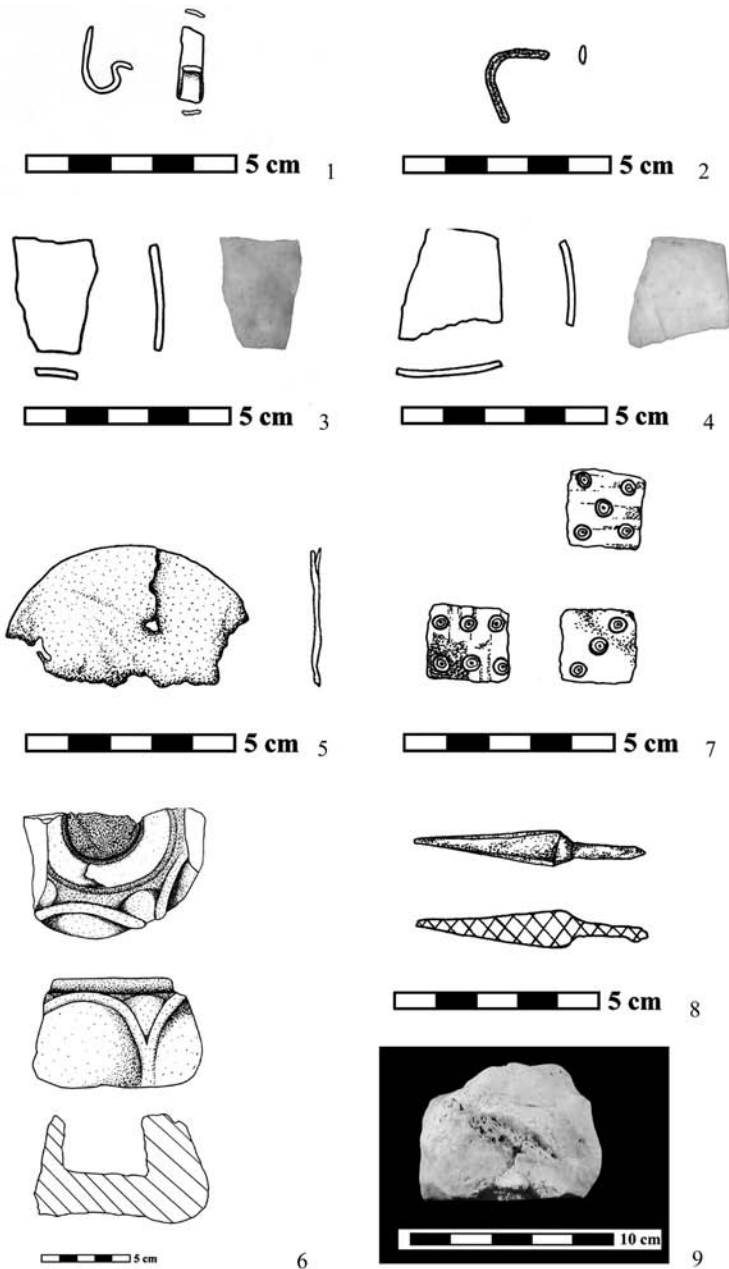


Fig. 12.6. Wick holders, 1) TJ 1187; 2) TJ 1907; Ostrich egg shell fragments, 3) TJ 1100; 4) 1101; Drip plate, 5) TJ 1731; 6) Candlestick, TJ 1030; Die, 7) TJ 238; Pilum, 8) TJ 299; Sulphur, 9) Sample #3.

TJ 1907 (Fig. 12.6.2; D31:28/67). Copper fragment; max L 2.8, W 0.5 cm; broken.

Parallels

Siyāgha (Mount Nebo): Several wick holders are reported from various rooms and tombs of the monastic compound (Saller 1941: fig. 18:3).

Uyun Musa: A number of bronze wick holders were found in various loci and can be associated with tumbler and stemmed lamps (Alliata 1990a: fig. 8:108, 109).

Dhībān: A number of wick holders, all bent but still recognizable, were made of lead or leaded copper (Tushingham 1972:158; fig. 13:48–50, 55–56, 58, 60).

Umm al-Rasas: A good example of a wick holder comes from the Church of St. Stephen, while another is shown with other metal fragments (Alliata 1991: figs. 3:21; 25:7; 19:28=1994:179; fig. 18).¹⁴

V-B/2. Ostrich Egg Shell

The 37 shell fragments, possibly from a single ostrich egg, are undecorated with the exception of TJ 590 (Sh-44),¹⁵ which is inscribed in Greek (Chapter 11 above). Pieces of shell are known to have been used on the chains of oil lamps to protect the oil from small animals when the lamp was not lit (Robert Schick, personal communication).¹⁶ However, the eggs themselves were often architectural ornaments. Because only a handful of small fragments mended, three of the larger fragments are presented in the catalogue.¹⁷

¹⁴ This wick holder was not individually numbered in Alliata 1991, but was illustrated with glass lamp shards; the same object is given an individual number in the final report (Alliata 1994a).

¹⁵ Shells, fossils and fragments of ostrich egg shell were assigned shell numbers, since many of these items are broken and were considered to be samples, rather than separate artefacts.

¹⁶ Because there is no evidence for a standing lamp stand and for wax on the shell itself, it is likely that pieces of shell were not used as drip plates; see Waldbaum (1983: pl. 39:613) for an example of a metal drip plate.

¹⁷ Egg shell fragments not given object registration numbers are Sh-12, Sh-13, Sh-14, Sh-21, Sh-26.

Catalogue

TJ 804 (Sh-25; D32:26/50). L 4.0, W 2.5 cm; lozenge shape.

TJ 1100 (Fig. 12.6.3; Sh-80; D23:15/29). L 2.7, W 2.0 cm; trapezoidal.

TJ 1101 (Fig. 12.6.4; Sh-52; D23:3/32). L 2.8, W 2.5 cm; lozenge shape.

V-B/3. Metal Disc/Drip Plate

Criteria: Although badly corroded, Object TJ 1731 may be included in the class of furnishings. Based on parallels from various churches, such discs served as drip plates for lamp stands.

Catalogue

TJ 1731 (Fig. 12.6.5; D12:21/37). Bronze; D 6.0, T 0.1 cm; broken.

Parallels

Sardis: A fine example of the use of a drip plate can be seen on a tall tripod stand at Sardis (Waldbaum 1983: pl. 39:613).

*V-C. Candlestick**Limestone Candlestick*

One example of a limestone candlestick was recovered in Central Hall 607. This unusual object is decorated with semi-circles or arches, a motif that also appears on several ceramic lamps from Building 600.

Catalogue

TJ 1030 (Fig. 12.6.6; D23/17). Limestone; D 4.5, H 6.5, int Dpt 3.4 cm; soot stained, broken.

VI. LEISURE

A. GAMING PIECES

VI-A/1. Dice

Criteria: A die is a cuboid gaming piece with depressions or incised circles on all sides. The number of circles range from one to six, the same as modern dice. Based on the manner in which the die from Tall Jawa has shattered, it was probably made out of elephant ivory. The style of decoration is circle and dot, similar to a style already in use in the Bronze Age on ivory inlays, such as those recovered in the Late Bronze Age chamber tombs on Dominus Flevit (Saller 1964: pl. 37:1).

Catalogue

TJ 238 (Fig. 12.6.7; D12:5/13). Ivory; L1.7, W 1.8, H 1.8 cm; broken.

Parallels

Beth Shean: A number of artefacts decorated with incised concentric circles and dots include handles, pendants, and a die (101515; Ayalon 2006: fig. 23.1:14=photo 23.8).

Jerusalem: Among the bone artefacts recovered from Roman period houses south of the Temple Mount are a number of dice with circle-and-dot eyes on all sides (Ben-Dov 1982:164, middle left). From the Armenian Garden excavations, four bone dice have the same circle-and-dot impressions as the Tall Jawa die (Tushingham 1985: fig. 69:8, 9, 11, 12).

Gezer: Macalister found several dice, one of which he attributes to the Byzantine period (1912:317; pl. 78:26).

Ashkelon: Beginning in the Persian period, evidence for extensive bone working consists of spindle whorls, dice, pins and needles. Wapnish suggests that the concentric circle-and-dot eyes on a die from Ashkelon are the result of using a special tool known as a “center-bit scriber” (Wapnish 1991:57).¹⁸

¹⁸ A different type of “center bit scriber” was probably used to incise the design on a set of dice from Sepphoris, since the dot is surrounded by a single broad circular depression (Batey 1992:57), rather than concentric circles.

Hama: Two complete and two broken dice were assigned to the late Byzantine–early Islamic period. Die 4 B 48 has ‘eyes’ with a single circle and a central dot (Ploug *et al.* 1969:132, 134; fig. 7:7).

al-Fudayn (Mafraq): Along with an ivory handle and other ivory objects were two dice with incised circles and dot (al-Asad 2000:52).

Jarash: Four dice of different sizes each have a circle-and-dot design to designate the number on a side. These bone dice were recovered from “5th century levels from the *hyposcaenium* and the *postscaenium*” of the North Theatre (Clark and Bowsher *et al.* 1986:266; pl. XXVII.1: G, H, I).

VII. MILITARY DEFENCE

A. POINTS

VII-A/1. Pilum

Only one *pilum* is present in the corpus. This point is square in section and pyramidal in shape with the base tapered toward the tang. The tang is almost half the length of the head, making for a well balanced point. Although not found in Building 600, it reflects the distribution across the site of Byzantine period materials.

Catalogue

TJ 299 (Fig. 12.6.8; B26:0.5/1). Iron; L 5.65, tang 1.90 cm; complete.

Parallels

Sardis: Only two points, each with a long tang and relatively square in section, can be cited as examples dating to the Middle and Late Byzantine periods (Waldbaum 1983: pl. 5:77, 82).

Khirbet Shema': In a corpus of 8 points, only one (Meyers *et al.* 1976: pl. 8.1:22) has the proportions of the Tall Jawa *pilum*.

Meiron: Among the miscellaneous objects are four iron points, all square in section (Meyers *et al.* 1981: pl. 9.22:3–6), which are assigned to Stratum VII (Medieval period). The best examples are R74193 and R75118 (22:3, 4), because the tangs on the other two points are broken.

Dhībān: One example (DO 6) reported by Winnett (1964: pl. 19:13) was located below the pavement of the hall attached to the bath complex and may be Roman in date. Pottery from the final use phase of the hall dates to the Late Byzantine–Early Arabic period.

VIII. NATURAL RESOURCES

A number of fossils and shell fragments were previously studied by Reese (2002). Two fossils are bivalves; Sh-78 (D2:2/6) is complete, whereas Sh-77 (D22:11/17) is a fragment. Another marine fragment consists of an unidentified shell, Sh-75 (D32:35/56).

Sulphur (Fig. 12.6.9)

One lump of sulphur was present in Room 602 (D22:4/6). It is yellow to pale yellow (5Y 8/6–5Y 7/4) in colour and weighs 888.5 g. The precise use of this mineral in its context is hypothetical. It is clearly not a local product and must have had a specialized use, possibly for its properties as an insecticide or fungicide.

Bitumen

One accumulation of naturally occurring bitumen was recovered in the northwest corner of Room 601. The bitumen appeared to have melted as it was in a folded form when discovered. The exact function of this material for the inhabitants of Building 600 is also unknown.

CHAPTER THIRTEEN

THE EARLY ISLAMIC COIN HOARD

Alan Walmsley

INTRODUCTION

Of the thirty-eight coins found during the excavation of Field D, thirty-five come from one hoard of early Islamic copper alloy coins (Arabic: *fulūs*, singular *fuls*). The hoard was found in Room 605, identified as a kitchen, of Building 600, and comprised six unequal groups (here termed ‘stacks’) totaling twenty-six coins and nine single finds. Associated with the hoard were traces of fabric (for the circumstances of the hoard’s discovery, see above, Chapter 3). The three other coins from Field D, all incidental finds, have been dealt with earlier (Chapter 12). As the early Islamic hoard constitutes the most significant numismatic find at Tall Jawa, it is dealt with in some detail in this chapter.

HISTORICAL CONTEXT

In the 690’s AD, the Umayyad caliph Abd al-Malik (685–705 AD) initiated a major reform of the coinage circulating in the Islamic world. Until these reforms, a mixture of coinage remained current in Syria-Palestine (Arabic: Bilād al-Shām): the gold, silver, and copper issues of the pre-Islamic Byzantine Empire and, less so, Sassanid Empire (before *ca.* 635 AD); traded Byzantine issues in gold and copper dating to after the Islamic expansion of the 630s; imitations of these produced at a regional level in gold, silver, and copper; and the first attempts at a formal Islamic coinage in gold and copper. Literature on this ‘pre-reform’ Islamic coinage is extensive, with a number of important works appearing recently (Album and Goodwin 2002; Foss 1994–99, 2002, 2004; Goodwin 2005; Goussous 2004; Ilisch 1993, 2003). These studies have demonstrated that a long and complex series of issues commenced in earnest with the establishment of the Umayyad caliphate centred on Damascus. As coins from excavations are published,

further advances in understanding the development of early Islamic coinage can be expected, which will also offer new perspectives on the development of Islamic governmental institutions in the seventh and eighth centuries AD.

Following Abd al-Malik's reforms, a predominantly imageless coinage in three denominations of gold (*dinar*), silver (*dirham*), and copper (*fals*) was established. In place of images, post-reform Islamic coins were predominantly epigraphic, with a plain but elegant form of the Arabic script, known as Kūfīc, covering the two faces of a coin with proclamations of faith and, sometimes, other texts, such as select extracts from the Qur'ān, the name of the mint, or a date of issue. The reformed coinage came to dominate the monetary system of the eighth century, quickly replacing the earlier, experimental, coinage produced in seventh-century Syria-Palestine. Of the three reformed denominations, only gold and silver had any real value in the eighth century; copper mostly served as 'small change' in the market place. By the end of the Umayyad period (750 AD), the fals had lost much of its market value as a result of inflationary pressures caused by a widening exchange rate between the dirham and the dinar.

CATALOGUE OF THE COINS

All of the early Islamic coins recovered as a hoard at Tall Jawa belong to the post-reform copper class. That class shows a fair degree of stylistic variation when compared with the corresponding silver and gold denominations, with mints, dates, the name of the responsible person and/or animals, plants or symbols sometimes included. However, the coin types contained in the Tall Jawa hoard do not reflect this variety, as they solely belong to two categories notable only for their plainness:

1. coins that include a mint name, and
2. fully anonymous issues, without a mint name, authority or date.

The copper coins of the Tall Jawa hoard, in keeping with Islamic coins generally, were imbued with a legal authority and aesthetic quality through epigraphy, not images. Central to the epigraphic regime on the coins was the proclamation of faith, the *shahādah*. Usually, this was distributed over the two faces of a coin, known as the 'first shahādah'

on the obverse and the ‘second shahādah’ on the reverse. The text was normally arranged as follows.

First shahādah

<i>line</i>	<i>English</i>	<i>Arabic</i>
1	There is no god	لا اله
2	But God (Allah)	الأ الله
3	Alone	وحده

Second shahādah

1	Muhammad is	محمد
2	The Messenger	رسول
3	Of God	الله

In the following catalogue, the terms ‘first shahādah’ and ‘second shahādah’ have been used, where relevant, in order to shorten the coin descriptions. Any significant variations or additional features on an individual coin are then mentioned in the description. Square brackets have been used to indicate where missing text has been restored.

The compilation of the catalogue was significantly helped by the initial field readings of the coins by Hamdan Mansur and their preliminary identifications by Martin Beckmann. These descriptions were subsequently revised and augmented by Alan Walmsley, who only had the catalogue records, drawings, and photographs for reference. Some details, such as coin axes and weights, were missing from these records. Accordingly, while some details might have been overlooked, the principal identifications seem secure.

The following abbreviations refer to three major catalogues of early Islamic coins:

1. Goussous: Goussous 2004;
2. Ilisch: Ilisch 1993;
3. Walker: Walker 1956.

The numbers refer to the catalogue entries in each work; page numbers, when given, are indicated in the appropriate manner.

*With Mint Name**Damascus (Dimashq) دمشق*

TJHrd-1. TJD32.67.1050 (Fig. 13.1.1).

Æ Fals, Damascus. Complete, regular flan, partly worn.

Obverse. In centre: first shahādah, third line obscured; within chevron circle.

Reverse. In centre: 'this fals [was minted] in Damascus' (literally: 'minted/this fals/in Damascus'); single chevron circle.

Diameter: 12.0–14.0 mm; thickness: 2.0 mm.

At top of Stack 4 (for stacks see Fig. 4 and below), reverse adjacent to reverse of TJHrd-11.

Goussous 376; similar Walker 828.

TJHrd-2. TJD32.67.1065 (Fig. 13.1.2).

Æ Fals, Damascus. Complete, regular flan, worn.

Obverse. In centre: first shahādah, obscured.

Reverse. In centre: 'this fals was minted in Dam[ascus]'

Diameter: 12.0 mm; thickness: 2.0 mm.

Top of Stack 6, obverse adjacent to obverse of TJHrd-27.

Similar to TJHrd-1

TJHrd-3. TJD32.67.1045 (Fig. 13.1.3).

Æ Fals, Damascus; Complete, mostly regular flan; unworn.

Obverse. In centre: first shahādah; within circle.

Reverse. In centre: 'this fals was minted in Damascus'; within circle.

Diameter: 13.5–14.1 mm; thickness: 1.2 mm.

In Stack 2, obverse adjacent to obverse of TJHrd-20, reverse adjacent to reverse of TJHrd-12.

Similar to TJHrd-1.

TJHrd-4. TJD32.67.1038 (Fig. 13.1.4).

Æ Fals, Damascus. Complete, regular flan, very worn.

Obverse. Illegible.

Reverse. In centre: 'this [fals] was minted [in Da]mascus' (obscured); circle to left.

Diameter: 15.0 mm.

Same as TJHrd-3, but slightly larger flan.

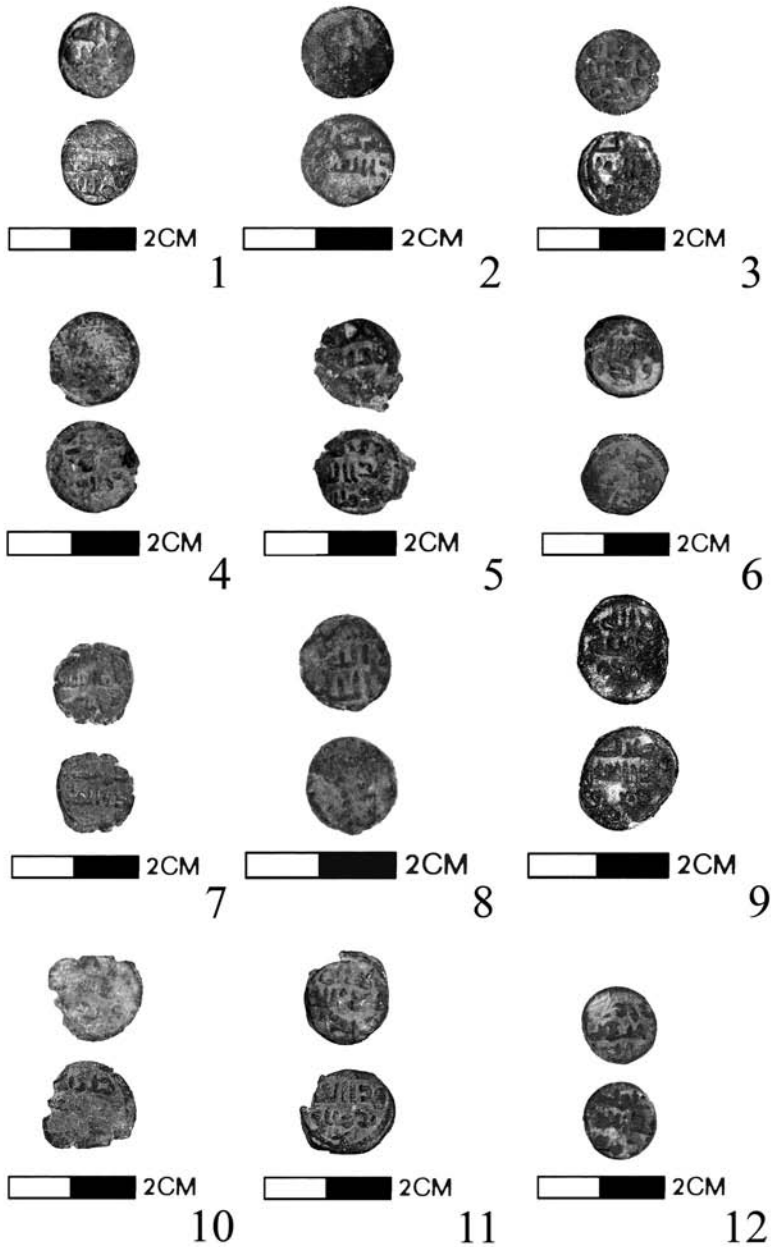


Figure 13.1a. Coins from the Tall Jawa hoard (photographs by R. Mittelstaedt).

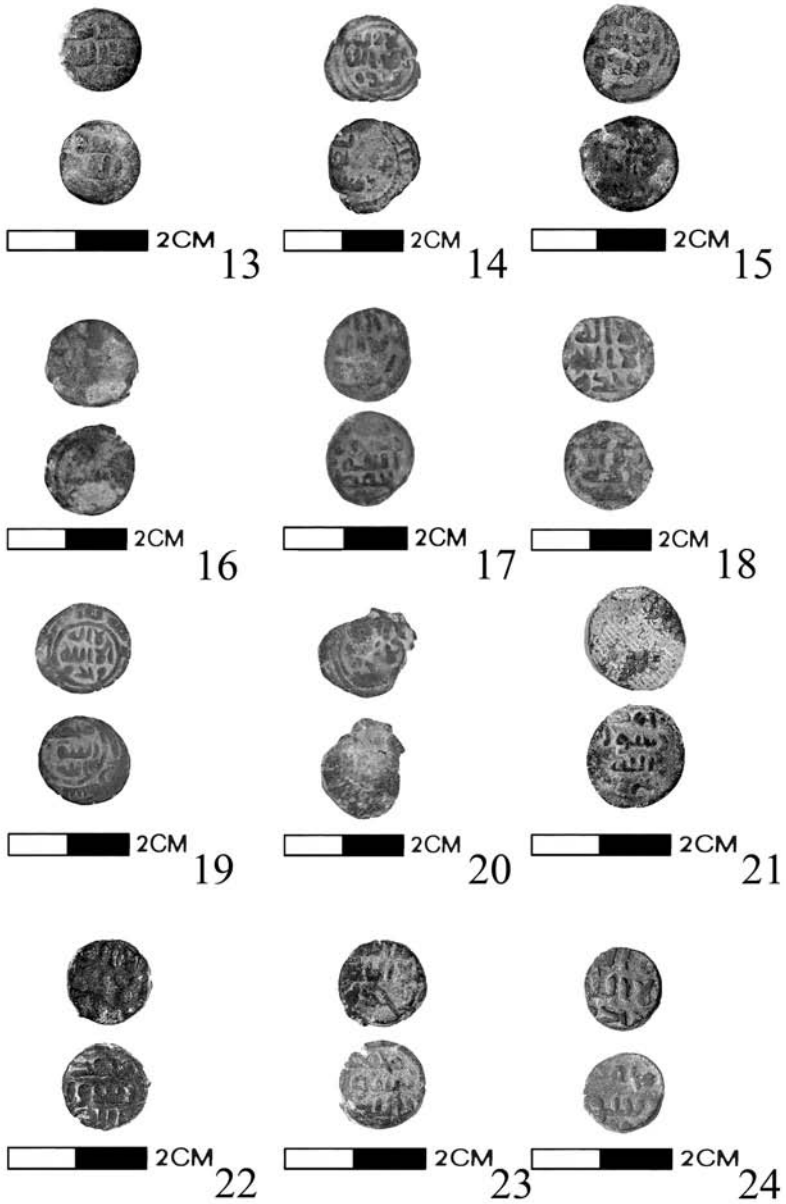


Figure 13.1b. Coins from the Tall Jawa hoard (photographs by R. Mittelstaedt).

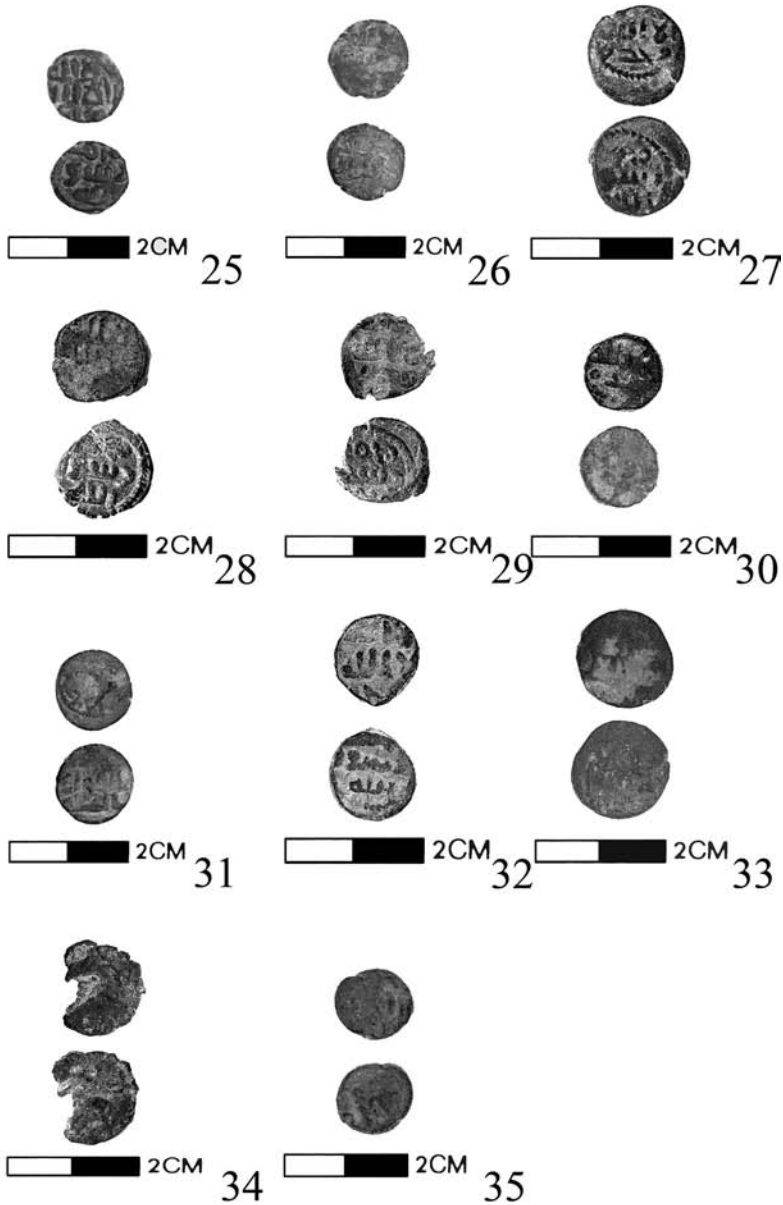


Figure 13.1c. Coins from the Tall Jawa hoard (photographs by R. Mittelstaedt).

TJHrd-5. TJD32.67.1037 (Fig. 13.1.5).

Æ Fals, Damascus. Complete, irregular flan, unworn.

Obverse. In centre: first shahādah; circle preserved to right.

Reverse. In centre: 'this fals was minted in Damascus'; pronounced single chevron circle preserved to right.

Diameter: 14.0–17.0 mm.

Similar to TJHrd-1, but less regular.

TJHrd-6. TJD32.67.1053 (Fig. 13.1.6).

Æ Fals, Damascus. Complete, irregular flan, some wear.

Obverse. In centre: first shahādah; within circle.

Reverse. In centre: 'this fals was minted in Damascus'; pronounced single chevron circle preserved top right.

Diameter: 13.0–14.0 mm; thickness: 1.0–2.0 mm.

In Stack 4, obverse adjacent to reverse of TJHrd-32, reverse adjacent to reverse of TJHrd-14.

As TJHrd-5.

TJHrd-7. TJD32.67.1043 (Fig. 13.1.7).

Æ Fals, Damascus. Complete, irregular flan; unworn.

Obverse. In centre: first shahādah; part chevron circle to right.

Reverse. In centre: 'this fals was minted [in Damascus]'. Mint name obscured.

Diameter: 12.0–13.0 mm; thickness: 1.5 mm.

As TJHrd-5.

TJHrd-8. TJD32.67.1069 (Fig. 13.1.8).

Æ Fals, Damascus (?); complete, regular flan; worn.

Obverse. In centre: part of first shahādah, within chevron circle; all offset to lower right.

Reverse. Very obscured, but possibly as TJHrd-1.

Diameter: 12.0–13.0 mm.

TJHrd-9. TJD32.67.1056 (Fig. 13.1.9).

Æ Fals, Damascus. Complete, ovoid flan; unworn.

Obverse. In centre: first shahādah, possible star at end of first line; all within chevron circle.

Reverse. In centre: 'this fals was minted in Damascus'; within circle.

Diameter: 13.5–16.0 mm; thickness: 1.5 mm.

At base of Stack 4, obverse adjacent to obverse of TJHrd-33.
For star at the end of the first line of the shahādah on the obverse,
see Goussous 538 (from Qaysāriyah/Caesarea Maritima)

TJHrd-10. TJD32.67.1049 (Fig. 13.1.10).

Æ Fals, Damascus (?). Incomplete, corroded; worn.

Obverse. In centre: traces of first shahādah, within circle.

Reverse. In centre: 'this fals was minted [in Damascus]'. Mint
name illegible.

Diameter: 14.0–15.0 mm; thickness: 1.1 mm.

At base of Stack 3, reverse adjacent to obverse of TJHrd-31.

As TJHrd-9, but less distinct.

TJHrd-11. TJD32.67.1051 (Fig. 13.1.11).

Æ Fals, Damascus. Complete, irregular flan; unworn.

Obverse. In centre: first shahādah; within beaded circle.

Reverse. In centre: 'this fals [was minted] in Damascus'; possible
symbol (star?) underneath; all within circle.

Diameter: 14.0–16.0 mm; thickness: 2.0 mm.

In Stack 4, obverse adjacent to obverse of TJHrd-14, reverse adjacent
to reverse of TJHrd-1.

TJHrd-12. TJD32.67.1044 (Fig. 13.1.12).

Æ Fals, Damascus; Complete, regular flan; unworn.

Obverse. In centre: second shahādah; within circle; traces of fabric.

Reverse. In centre: 'this fals was minted in Damascus'; within plain
circle; trace of fabric.

Diameter: 12.0 mm; thickness: 2.0 mm.

At top of Stack 2, reverse adjacent to reverse of TJHrd-3.

Goussous 375A, p. 475.

TJHrd-13. TJD32.67.1063 (Fig. 13.1.13).

Æ Fals, Damascus; Complete, regular flan; partly worn and obscured.

Obverse. In centre: second shahādah.

Reverse. In centre: 'this fals was minted [in Damascus].

Diameter: 12.0 mm; thickness: 2.0 mm.

At base of Stack 5, obverse adjacent to reverse of TJHrd-29.

Same as TJHrd-12.

TJHrd-14. TJD32.67.1052 (Fig. 13.1.14).

Æ Fals, Damascus; Complete, irregular flan; partly worn.

Obverse. In centre: first shahādah; within double circle.

Reverse. In centre: 'this fals was minted in Damascus' (partly obscured); within double circle with striations.

Diameter: 15.0–16.5 mm; thickness: 1.8 mm.

In Stack 4; obverse adjacent to obverse of TJHrd-11, reverse adjacent to reverse of TJHrd-6.

Goussous 377.

TJHrd-15. TJD32.67.1060 (Fig. 13.1.15).

Æ Fals, Damascus; Complete, mostly regular flan; partly worn.

Obverse. In centre: first shahādah; within double chevron circle; off flan to upper left.

Reverse. In centre: 'this fals was minted in Damascus' (partly obscured).

Diameter: 14.5–15.0 mm; thickness: 1.6 mm.

In Stack 5, obverse adjacent to reverse of TJHrd-21, reverse adjacent to reverse of TJHrd-28.

Probably the same as TJHrd-14.

TJHrd-16. TJD32.67.1047 (Fig. 13.1.16).

Æ Fals, Damascus (?); Complete, regular flan; very worn.

Obverse. Illegible.

Reverse. Illegible. Indications of a double circle with striations to left.

Diameter: 15.1 mm; thickness: 1.2 mm.

At top of Stack 3, adjacent to reverse of TJHrd-31.

Probably the same as TJHrd-14.

Homs (*Hims*) *حصص*

TJHrd-17. TJD32.67.1070 (Fig. 13.1.17).

Æ Fals, Hims; complete, ovoid flan; partly worn.

Obverse. In centre: first shahādah; within circle.

Reverse. In centre: second shahādah + 'bi Hims' ('in Homs'); all in a plain circle; fabric adhering to edge.

Diameter: 16.0 mm; thickness: 1.5 mm.

Similar Walker 799, Goussous 426.

TJHrd-18. TJD32.67.1042 (Fig. 13.1.18).

Æ Fals, Hims; complete, mostly regular flan; unworn.

Obverse. In centre: first shahādah; within circle.

Reverse. In centre: second shahādah + ‘bi Hims’; all in a plain circle; partly obscured.

Diameter: 16.0–16.2 mm; thickness: 1.85 mm.

At base of Stack 1, obverse adjacent to obverse of TJHrd-26.

Same as TJHrd-17.

Palestine (Filasṭīn) فلسطين

TJHrd-19. TJD32.67.1039 (Fig. 13.1.19).

Æ Fals, Filasṭīn; complete, slightly ovoid flan; unworn.

Obverse. In centre: first shahādah, within lightly beaded circle; marginal inscription ‘To Allah belongs the sovereignty; fals of full weight’.

Reverse. In centre: second shahādah, within lightly beaded circle; marginal inscription [Minted in] Filasṭīn; thick, beaded outer circle to lower right.

Diameter: 16.0–16.1 mm; thickness: 1.0 mm.

Ilisch 21, Walker 911.

The obverse marginal legend is common on the coins of the Jund Filasṭīn, found on those minted at ‘Asqalān, Ghazzah, Ludd, al-Ramlah, and Filasṭīn (the latter a generic mint name, almost certainly issued in the capital al-Ramlah). The phrase ‘To God (Allah) belongs the sovereignty’ (لِلَّهِ الْمُلْكُ) is an extract from the Qur’ān found in numerous verses, such as Chapter 5 (‘The Feast’) verse 120: ‘To God belongs the sovereignty of the heavens and the earth, and everything in them, and He is Omnipotent’ (Khalifa translation).

Jordan (al-Urdunn) الأردن

TJHrd-20. TJD32.67.1046 (Fig. 13.1.20).

Æ Fals, Ṭabariyah (?); complete, very irregular flan; worn.

Obverse. In centre: first shahādah, within triple beaded circles.

Reverse. Illegible.

Diameter: 14.1–15.0 mm; thickness: 1.2 mm.

At base of Stack 2; obverse adjacent to obverse of TJHrd-3.

Similar to Ilisch 304–6 (Ṭabariyah), which also have irregular flans.

Uncertain Province

TJHrd-21. TJD32.67.1061 (Fig. 13.1.21).

Æ Fals, uncertain mint; complete, ovoid flan; worn.

Obverse. Illegible.

Reverse. In centre: second shahādah; traces of marginal inscription (possibly the 'r' of *darb*, 'minted').

Diameter: 14.0–15.0 mm; thickness: 1.8 mm.

In Stack 5; obverse adjacent to obverse of TJHrd-29, reverse adjacent to obverse of TJHrd-15.

Without Mint Name (Anonymous Issues)

TJHrd-22. TJD32.67.1057 (Fig. 13.1.22).

Æ Fals; complete, regular flan; unworn.

Obverse. In centre: first shahādah.

Reverse. In centre: second shahādah, light beaded circle to top and right.

Diameter: 12.5–12.6 mm; thickness: 2 mm.

Top of Stack 5; obverse adjacent to reverse of TJHrd-30.

Similar Walker 638; Goussous 207.

TJHrd-23. TJD32.67.1068 (Fig. 13.1.23).

Æ Fals; complete, slightly ovoid flan; unworn.

Obverse. In centre: first shahādah, slightly off-flan to top.

Reverse. In centre: second shahādah.

Diameter: 12.0–13.0 mm; thickness: 1.8 mm.

At base of Stack 6, adjacent TJHrd-34

Similar TJHrd-22.

TJHrd-24. TJD32.67.1064 (Fig. 13.1.24).

Æ Fals; complete, slightly ovoid flan; unworn.

Obverse. In centre: first shahādah.

Reverse. In centre: second shahādah, third line off-flan.

Diameter: 11.0–12.0 mm; thickness: 2 mm.

Similar TJHrd-22.

TJHrd-25. TJD32.67.1040 (Fig. 13.1.25).

Æ Fals; complete, regular flan; unworn.

Obverse. In centre: first shahādah, within circle; all offset to lower left. The 'l' of *rasūl* ('messenger') which should end line 2 appears to have been omitted or carried over to line 3.

Reverse. In centre: second shahādah, within beaded circle; all offset top right.

Diameter: 12.5–13.0 mm; thickness: 2 mm.

As TJHrd-22, except line 2 of the obverse.

TJHrd-26. TJD32.67.1041 (Fig. 13.1.26).

Æ Fals; complete, regular flan; some wear.

Obverse. In centre: first shahādah, within circle.

Reverse. In centre: second shahādah, within circle.

Diameter: 14.1–15.0 mm; thickness: 1.8 mm.

Top of Stack 1; obverse adjacent to obverse of TJHrd-18.

TJHrd-27. TJD32.67.1066 (Fig. 13.1.27).

Æ Fals; complete, generally regular flan; unworn.

Obverse. In centre: second and third lines of the first shahādah; within pronounced chevron circle; all offset flan to top.

Reverse. In centre: second shahādah, within pronounced chevron circle to top right; all offset flan to lower left.

Diameter: 14.0–14.7 mm; thickness: 1.3 mm.

In Stack 6; obverse adjacent to obverse of TJHrd-2, reverse adjacent to TJHrd-34.

TJHrd-28. TJD32.67.1059 (Fig. 13.1.28).

Æ Fals; complete, irregular flan; some wear/corrosion.

Obverse. In centre: first two lines of the first shahādah; traces of circle.

Reverse. In centre: second shahādah, within pronounced chevron circle to right.

Diameter: 13.0–14.0 mm; thickness: 2.0 mm.

In Stack 5; obverse adjacent to obverse of TJHrd-30, reverse adjacent to reverse of TJHrd-15.

Same as TJHrd-27.

TJHrd-29. TJD32.67.1062 (Fig. 13.1.29).

Æ Fals; complete, irregular flan; unworn.

Obverse. In centre: first shahādah; pronounced circle to left.

Reverse. In centre: second shahādah, pronounced circle top right; all off-flan to lower left.

Diameter: 13.0–14.0 mm; thickness: 1.8 mm.

In Stack 5; obverse adjacent to obverse of TJHrd-21, reverse adjacent to obverse of TJHrd-13.

Similar TJHrd-28.

TJHrd-30. TJD32.67.1058 (Fig. 13.1.30).

Æ Fals; complete, mostly regular flan; worn.

Obverse. In centre: first shahādah, first line obscured; trace of beaded circle lower left.

Reverse. In centre: second shahādah, first line ('Muhammad') obscured; lower beaded circle.

Diameter: 12.0 mm; thickness: 1.8 mm.

In Stack 5; obverse adjacent to obverse of TJHrd-28, reverse adjacent to obverse of TJHrd-22.

TJHrd-31. TJD32.67.1048 (Fig. 13.1.31).

Æ Fals; complete, mostly regular flan; worn.

Obverse. In centre: indistinct; part of beaded circle.

Reverse. In centre: second shahādah, first line ('Muhammad') obscured, star after 'l' of *rasūl*; traces of beaded circle.

Diameter: 13.0 mm; thickness: 1.0 mm.

In Stack 3; obverse adjacent to reverse of TJHrd-10, reverse adjacent to TJHrd-16.

TJHrd-32. TJD32.67.1054 (Fig. 13.1.32).

Æ Fals; complete, pear-shaped flan; unworn.

Obverse. In centre: first shahādah, last line off-flan.

Reverse. In centre: second shahādah; traces of beaded circle lower right.

Diameter: 13.0–13.8 mm; thickness: 2.0 mm.

In Stack 4; obverse adjacent to TJHrd-33, reverse adjacent to obverse of TJHrd-6.

Unidentifiable Islamic

TJHrd-33. TJD32.67.1055 (Fig. 13.1.33).

Æ Fals; complete, slightly irregular flan; very worn.

Obverse. Largely illegible; trace of first shahādah?

Reverse. Largely illegible; trace of second shahādah (third line).

Diameter: 15.0–15.8 mm; thickness 1.8 mm.

In Stack 4; obverse adjacent to obverse of TjHrd-9, reverse adjacent to obverse of TjHrd-32.

Size and appearance very similar to TjHrd-17 and TjHrd-18 (from Hims).

TjHrd-34. TJD32.67.1067 (Fig. 13.1.34).

Æ Fals; incomplete; corroded.

Obverse. Illegible.

Reverse. Part of second shahādah (part second and all third line).

Diameter: 10.0–14.0 mm; thickness 1.0 mm.

In Stack 6, adjacent TjHrd-23 and reverse of TjHrd-27.

TjHrd-35. TJD32.67.1036 (Fig. 13.1.35).

Æ Fals; complete, ovoid flan; corroded.

Obverse. Illegible.

Reverse. Illegible.

Diameter: 12.0–13.2 mm.

Index of Coins

The following table (Table 13A) cross-references the excavation catalogue number, used in the database, with the hoard publication number used in the catalogue. It was necessary to renumber the coins for publication in order to present them according to types. The corresponding field excavation number allocated in the field is also listed. The right-hand column identifies those specimens that belonged to the six stacks of coins recovered during excavation (see above, Chapter 3).

COMMENTARY

As mentioned earlier, the identifiable coins of the Tall Jawa hoard divide into two major categories: those attributable to a province by virtue of the inclusion of a mint name (65.5%) and, secondly, completely anonymous issues (34.5%). All the coins with a mint name came from regional mints in central and southern Syria-Palestine, namely Damascus, Hims, Filasṭīn (al-Ramlah), and Ṭabariyah (see Table 13B and Fig. 13.2). The absence of coins from more distant mints, which is not uncommon with corpora of coins recovered from eighth-century

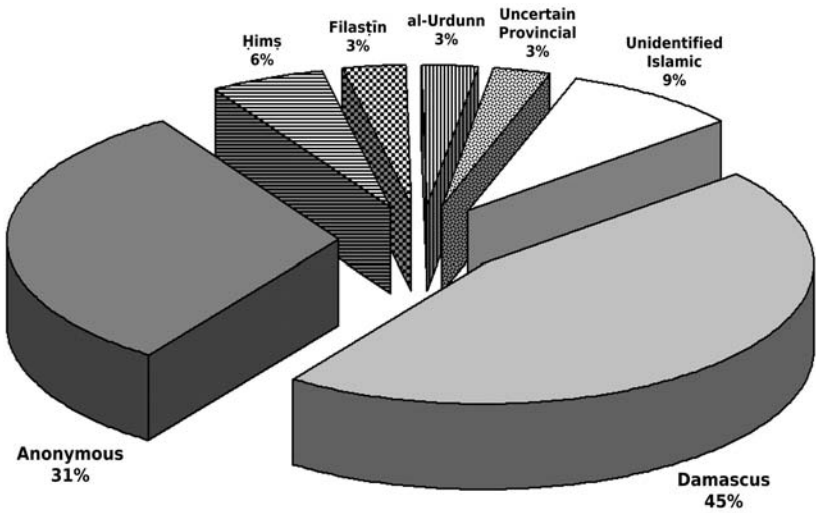


Figure 13.2. Chart showing the different mints represented in the Tall Jawa hoard (Walmsley).

contexts in Syria-Palestine (e.g. Walmsley 2001), suggests that the hoard was compiled as a single event. This suggestion is further supported by the fact that Damascus was by far the major source of the Tall Jawa hoard, comprising 45% of all coins and 76% of the coins attributable to a mint in the hoard.

The prevalence of the Damascus mint is not unexpected, given that Tall Jawa was situated in the sub-governorate of the Balqā' district, of which 'Ammān was the main city, in the Jund Dimashq (the military province of Damascus) during early Islamic times (Fig. 13.3). Yet the high proportion of coins from Damascus has implications for isolating the probable source of the anonymous issues, which at 31% constitutes the next largest group of coins in the hoard after the Damascus issues. Without any identifying features, locating where anonymous coins were produced can be difficult and overly dependent on stylistic analyses, but archaeological context also provides important clues. Given the preponderance of named Damascus issues in the hoard, it is very likely that the anonymous coins also came from that mint and were obtained at the same time as the Damascus coins. The discovery and publication of further hoards from excavations will help to verify and refine the attribution of these anonymous issues to the mint at Damascus, perhaps also identifying a chronology in their production, as well as identifying other mints of anonymous issues in early Islamic Syria-Palestine.

Table 13A. Index of Excavation Catalogue, Hoard Publication, Field Coin Hoard and Stack Numbers.

Excavation Catalogue Number	Hoard Publication Number	Field Coin Hoard Number	Coin Stacks
TJD32.67.1036	TJHrd-35	coin 3	
TJD32.67.1037	TJHrd-5	coin 4	
TJD32.67.1038	TJHrd-4	coin 5	
TJD32.67.1039	TJHrd-19	coin 6	
TJD32.67.1040	TJHrd-25	coin 7	
TJD32.67.1041	TJHrd-26	coin 8	1
TJD32.67.1042	TJHrd-18	coin 9	
TJD32.67.1043	TJHrd-7	coin 10	
TJD32.67.1044	TJHrd-12	coin 11	2
TJD32.67.1045	TJHrd-3	coin 12	
TJD32.67.1046	TJHrd-20	coin 13	
TJD32.67.1047	TJHrd-16	coin 14	3
TJD32.67.1048	TJHrd-31	coin 15	
TJD32.67.1049	TJHrd-10	coin 16	
TJD32.67.1050	TJHrd-1	coin 17	4
TJD32.67.1051	TJHrd-11	coin 18	
TJD32.67.1052	TJHrd-14	coin 19	
TJD32.67.1053	TJHrd-6	coin 20	
TJD32.67.1054	TJHrd-32	coin 21	
TJD32.67.1055	TJHrd-33	coin 22	
TJD32.67.1056	TJHrd-9	coin 23	
TJD32.67.1057	TJHrd-22	coin 24	5
TJD32.67.1058	TJHrd-30	coin 25	
TJD32.67.1059	TJHrd-28	coin 26	
TJD32.67.1060	TJHrd-15	coin 27	
TJD32.67.1061	TJHrd-21	coin 28	
TJD32.67.1062	TJHrd-29	coin 29	
TJD32.67.1063	TJHrd-13	coin 30	
TJD32.67.1064	TJHrd-24	coin 31	
TJD32.67.1065	TJHrd-2	coin 32	6
TJD32.67.1066	TJHrd-27	coin 33	
TJD32.67.1067	TJHrd-34	coin 34	
TJD32.67.1068	TJHrd-23	coin 35	
TJD32.67.1069	TJHrd-8	coin 1	
TJD32.67.1070	TJHrd-17	coin 2	

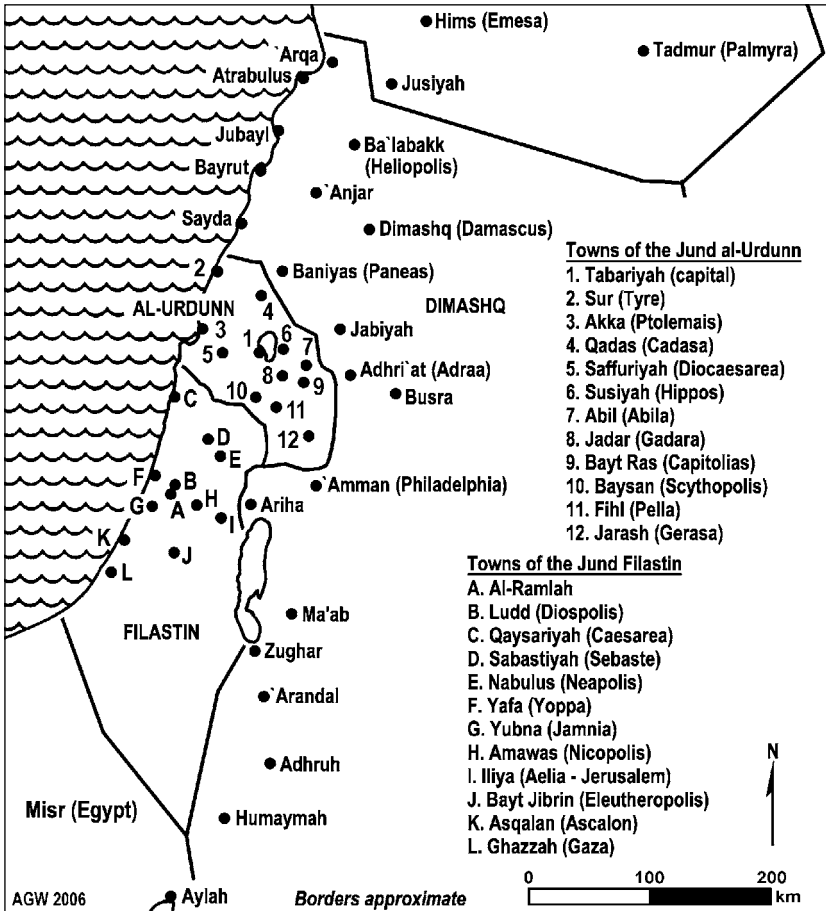


Figure 13.3. 'Ammān as a sub-governorship within the Jund Dimashq (Walmsley).

Within the standard regime of religious formulae common to the *fulūs* of the Tall Jawa hoard, only four main stylistic variants of coin faces can be identified (Table 13B). These are:

1. Central legend within a circle
 - a. With a plain circle
 - b. With a beaded circle
 - c. With a chevron (herring-bone) circle (e.g. TJHrd-11 [Damascus], TJHrd-27, 28 [anonymous], all with pronounced chevrons)
2. Central legend without a circle
3. Central legend with multiple circles (TJHrd-14–16, 20, 21)

- a. Independent circles – double or triple
 - b. Circles linked by short diagonal line (striations)
4. Central legend in circle with a marginal legend (TJHrd-19, 21)

The bulk of the identifiable hoard (26 of 32 coins or 81.25%) is made up of simply designed coins, cheap to produce *en masse*, belonging to variants 1 and 2 (Table 13B). Again the very limited stylistic repertoire of the Tall Jawa hoard indicates the restricted geographical and chronological source of the coins, which presumably represent change acquired in a major centre such as ‘Ammān or Damascus during one visit. Unfortunately, none of the coins have a date, but would seem to fit in between the opening of the Filasṭīn mint at al-Ramlah (after ca. 720 AD) and the coinage reforms under the ‘Abbāsīd Caliph al-Ma’mūn (813–833) in the 820’s (El-Hibri 1993). The question of coin

Table 13B. Distribution of Mints in the Tall Jawa Hoard.

Authority	Style Obverse	Reverse	Number	Total number
Damascus	first shahādah	mint	11	16
	second shahādah	mint	2	
	first shahādah in double circle	mint in double circle with striations	3	
Ḥimṣ	first shahādah	second shahādah + mint	2	2
Filasṭīn (al-Ramlah)	first shahādah + marginal legend	second shahādah + marginal legend (mint)	1	1
al-Urdunn (Ṭabariyah)	first shahādah in triple circle	indistinct	1	1
Uncertain provincial	indistinct	indistinct	1	1
Anonymous	first shahādah	second shahādah	11	11
Unidentified Islamic	indistinct	indistinct	3	3
Total:				35

production after the overthrow of the Umayyads is little understood, but it is not impossible that plain undated and anonymous issues filled the vacuum before distinctively ‘Abbāsid issues began.

Six stacks of coins were found during the excavation of the hoard, together making up 26 of the hoard’s 35 coins. These were, from top to bottom (the base of each stack is indicated by |):

- Stack 1, TJHrd-26/TJHrd-18 |
- Stack 2, TJHrd-12/TJHrd-3/TJHrd-20 |
- Stack 3, TJHrd-16/TJHrd-31/TJHrd-10 |
- Stack 4, TJHrd-1/TJHrd-11/TJHrd-14/TJHrd-6/TJHrd-32/TJHrd-33/TJHrd-9 |
- Stack 5, TJHrd-22/TJHrd-30/TJHrd-28/TJHrd-15/TJHrd-21/TJHrd-29/TJHrd-13 |
- Stack 6, TJHrd-2/TJHrd-27/TJHrd-34/TJHrd-23 |

There is no clear pattern or sorting of coins in these stacks (Fig. 13.4). Coin types and orientations are mixed, suggestive of randomly deposited small change lying in a purse, the cloth remnants of which were found during the excavation of the hoard (above, Chapter 3).

The Tall Jawa hoard is a small collection of coins that offer a valuable insight into the monetary economy of eighth-century Syria-Palestine. Seemingly compiled at one time in a major centre of the Jund Dimashq, the hoard offers a snapshot of the nature of small change that circulated

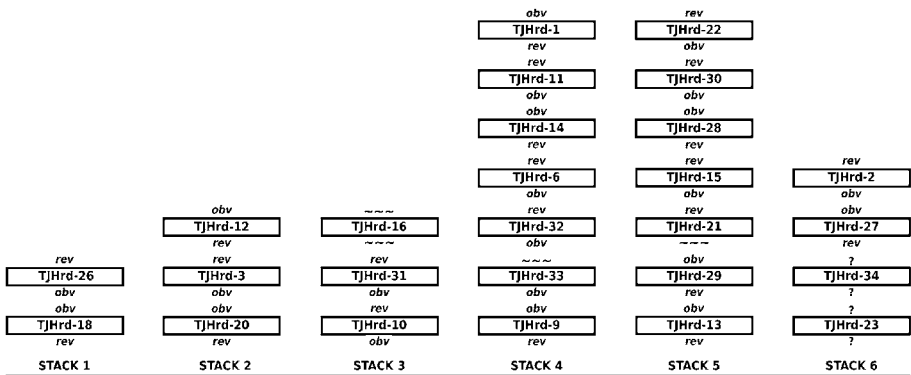


Figure 13.4. Diagrammatic representation of the six coin stacks of the Tall Jawa hoard (Walmsley).

in the marketplace of mid-eighth century Syria-Palestine.¹ It also goes some way towards identifying a mint for certain types of anonymous fulūs that, until now, have been difficult to distinguish as a group. The results reinforce the importance of fully publishing the types and accurate stratigraphical context of coins recovered during the course of archaeological investigations.

ACKNOWLEDGEMENTS

Many thanks go to P. M. Michèle Daviau for the opportunity to study this small but interesting group of coins from Tall Jawa. The completion of the catalogue was undertaken in the incomparable library at Dumbarton Oaks, Washington DC, during my term as a 2006–2007 Fellow in Byzantine Studies.

¹ (Note by P. M. M. Daviau). A second small hoard of 12 post-Reform copper coins from 'Ain al-Kanisah included two stacks wrapped in cloth (Gitler 1998:563; photo 564:A, B, pl. VI:9), the remnants of which were preserved on the surface and edges of certain coins.

CHAPTER FOURTEEN

GLASS VESSELS AND LAMPS

Heather A. Siemens

INTRODUCTION

Five seasons of excavation in Building 600 at Tall Jawa (1991–1995) produced 878 glass shards, of which 254 are diagnostic.¹ Diagnostic shards include rims, bases (including stems), handles, necks, and wick tubes. Within this corpus, there were no intact vessels,² and it is apparent that all glass vessels were blown, except two vessels, G63 and G154, which were mould-blown. At the same time, there is no known evidence of glass production at the site. During the first season of excavation in Building 600 (1991), glass fragments were registered as objects (Table 14A). In subsequent seasons, all glass objects were registered as a separate category, since they were both containers and luxury items. In some cases, they served the same function as ceramic vessels; however, their material distinguishes them from the pottery and its formal typology. In addition, the glass corpus is comprised almost exclusively of small open- and closed-mouth vessels. Rim diameters reach a maximum of 16.0 cm,³ with the exception of one hollow-folded⁴ rim shard measuring

¹ There are three diagnostic shards included in this catalogue that were not found in, but are contemporary with, Building 600. There is one shard each from Madaba Plains Project Site 129, Site 118, and Site 119, which were recovered during survey work. Additional shards from the excavated bedrock installations in Field M = MPP 118 are also included here, in view of the continuity of Byzantine traditions into the Islamic period. Four samples from Tomb T-1 are also in the database in view of their presence in a mixed assemblage of pottery and objects from both the Roman and Early Islamic periods.

² Because there are no intact glass vessels in the corpus, there are no complete profiles. In the case of a mended diagnostic shard, the shard was assigned a single “G” number. Diagnostic shards that may belong to the same vessel but cannot be mended have separate “G” numbers.

³ Of the 254 diagnostic shards, 109 are rim shards; 29% of all rim shards did not have a great enough circumference to obtain accurate rim diameters.

⁴ “Hollow-folded” refers to a folded rim where only the edge of the glass fold has been pressed against the body of the vessel, creating a hollow rim. The term

27.0 cm in diameter (G17, G92/7-e). Large vessels and bowls are conspicuously rare, and only four rim shards in the entire corpus have sufficiently large diameters to be classified as bowls (G17, G161, G222, G224).

Table 14A. Glass Samples Assigned Object Numbers.

TJ 145	TJ 483
TJ 146	TJ 484
TJ 394	TJ 505 (5 rims)
TJ 420	TJ 508 (2 rims)
TJ 457	TJ 559 (rim, base)
TJ 458	TJ 560
TJ 459	TJ 561 (4 rims)
TJ 460	TJ 562 (2 handles)
TJ 475	TJ 583 (rim)

REGISTRATION SYSTEMS

Beginning in 1992, all glass shards, both diagnostic and non-diagnostic (“body shards”), were assigned a sample number, in the form of the Excavation Season/Numerical Sequence of Registration-Lower Case Alpha Designation. To illustrate, the sample number “G92/1-a” indicates the sample was the first to be registered in the 1992 season, and ‘-a’ was the first shard in a group of shards that were retrieved from the same square and locus, and which also share the same pottery pail number. This detailed registration system accounts for all glass shards.

Diagnostic shards were given an individual glass number (G), which was consecutive throughout the seasons. Since glass numbers began to be assigned only in 1992, with “G1,” the diagnostic shards from the 1991 field season, in which all glass shards were originally given an object number, begin with “G40.” In some instances, where registration was not consistent or diagnostic shards were “missed” upon preliminary

“flat-folded” applies to rims where the entire fold has been pressed to the body, and “loop-folded” refers to folds that have a small, circular profile, producing a rim that is characterised by a hollow tube.

examination, “G” numbers had to be assigned at the end of excavation beginning with “G313.”⁵

In the ensuing descriptions of functional types, the glass vessels are identified using their glass number, followed by their sample number and a figure number.⁶ Included in the descriptions are maximum dimensions in centimetres for rim diameter (D), thickness of the glass (T), preserved width of the shard (W), and preserved height (H). Munsell Soil Color Codes for Gley were used to determine the colour of the glass, not the patina, where possible.⁷

The diagnostic glass shards are presented in a similar fashion to the pottery vessels in the Catalogue of Chapter 8. The glass vessels have been divided into functional classes represented by an Upper Case letter (A–Z), and then are subsequently divided into types determined by morphological differences within the larger classes, and designated numerically (1–99). Due to the small size of the corpus, in comparison to the pottery catalogue, it was not necessary to divide the glass into sub-types except to distinguish between beaded and hollow stemmed lamps.

FUNCTIONAL CLASSES

Following the format of the pottery catalogue (Chapter 8, above), the diagnostic glass shards are organized from open to closed forms (Table 14B). However, as stated in the introduction, large open forms are represented only minimally. The criteria for each class and type is presented and followed by catalogue entries for the best preserved examples of the type.⁸

⁵ Although “G” numbering was consecutive, not all numbers were assigned.

⁶ Images for all diagnostics and photos of the best preserved examples are included on the DVD, along with the database. All glass samples appear to date to the Late Byzantine/Early Islamic period, contemporary with B600. However, those shards recovered from other excavation areas on the site (Fields A–C, E) are given the stratum and date of their findspot.

⁷ The Munsell colour codes given in the catalogue and database of glass vessels are from various editions of the Soil Color Charts. The colour of the glass was sought, because the iridescence of the patina distorted an accurate colour code. The patina often enhanced the colour of the glass, and it will be noted where the patina was unusual in colour or thickness.

⁸ A total of 94 diagnostic shards are discussed in this catalogue, representing 37% of the diagnostic corpus; 30% of the diagnostic corpus is comprised of simple, thickened rims, while folded rims without handles represent 14%. Thus, 44% of diagnostics are comprised of rim fragments, ranging between 6.0 cm and 13.0 cm, which may belong

Finally, parallels from sites in Jordan and the Levant with Early Byzantine to Umayyad levels are given where available.⁹

Table 14B. Codes for Functional Classes of Glass Form Types.

A. Cups
B. Bowls
C. Wine Glasses
D. Goblets
E. Jars
F. Bottles
G. Unguent Bottles
H. Lamps
J. Window Panes
K. Miscellaneous

A. Cups

Criteria: Cups are not a common vessel type in the glass repertoire of the Umayyad period. However, making the distinction between cups and bowls using only rim fragments is difficult and based on subjective boundaries of acceptable rim diameter size. Many simple, thickened, or folded rims in the Tall Jawa corpus, with diameters ranging from 7.0 cm to 13.0 cm, may in fact be cups, but without an intact example this identification cannot be made with much certainty.

A-1. Small Cups

The following rim examples may belong to either cups or wine glasses, but because it is unknown if they were attached to stemmed bases they are recorded as cups in the catalogue.

Catalogue

G42 – G91/53-c. (Fig. 14.1:1; D12:5/13). Simple rim; slightly incurving with a thin ridge on the exterior. D 10.0. Colour 5BG 8/1, light greenish gray.

to bottles, cups, goblets, or wine glasses. There are at least five instances where two or more shards appear to belong to one vessel, for example G290+G289 are one wine glass; G72+G77, a bottle with loop folded rim; G83+G30, a beaded stemmed lamp; G277+G326+G280, a juglet; and G68+G71+G74 are interior 'ledges'.

⁹ Parallel glass material from sites in Jordan is given priority in this catalogue, and such material is listed first. Comparable glass vessels have also been found at a number of distant sites, and these will follow the Jordanian entries, according to their location, from east to west.

G163 – G93/7-f. (Fig. 14.1:2; D32:42/66). Thickened rim; gently incurving. D 9.0. Colour 5GY 7/1, light greenish gray.

G174 – G93/15-b. (Fig. 14.1:3; D32:44/69). Thickened rim; incurved. D 7.0. Colour 5G 6/2 pale green.

Parallels

Jarash: From Umayyad loci, incurved rims with comparable diameters were published by Meyer (1988:213; fig. 13:E–G).

Khirbat al-Karak: One example illustrated in the Khirbat al-Karak corpus closely resembles G42, and is dated to the Late Byzantine/Umayyad period (Delougaz and Haines 1960: pl. 59).

Mezad Tamar: A rim similar to G174 was given a wide date range of late third to early seventh century (Erdmann 1977:139; pl. 7).

B. Bowls

Criteria: Bowls have a larger rim diameter than cups, but are difficult to distinguish from goblet rims. The bowls at Tall Jawa (with one exception: G17, 92/7-e) may be considered small bowls because the maximum preserved diameter measures 16.0 cm. This is significantly smaller than bowl rims from other sites, such as Jarash, where the diameters of many examples exceed 20.0 cm.

B-1. Small Bowls

Small shallow bowls may have rounded or straight sides, flat or concave bases, and generally everted rims. There are no characteristics that make the following examples unusual or extraordinary in any way, although one fragment (G224) has traces of thread decoration.¹⁰

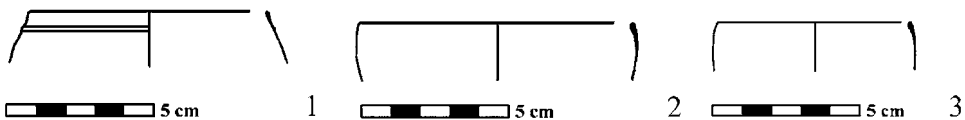


Figure 14.1. Cups. 1) G42; 2) G163; 3) G174.

¹⁰ Bowls from Corinth have been found with embedded and applied threads (Davidson 1952:80; pl. 54:608, 611).

Catalogue

G161 – G93/7-d. (Fig. 14.2:1; D32:42/66). Simple, slightly thickened rim. D 13.0. Colour 5G 7/2, pale green.

G224 – G94/25. (Fig. 14.2:2; D13:6/30). Everted, flat-folded rim; attached body fragment shows evidence of trailed thread decoration; vessel bears a carinated “S” profile; D 16.0, H 2.8, W 4.3. Colour 5BG 6/1, greenish gray.

Parallels

Jarash: Two rims from Jarash, one dated to the Early Byzantine locus and one to the Late Byzantine, appear to belong to small bowls. The example from the Early Byzantine locus has a similar “S” profile to G224, but the rim is not folded, nor is there evidence of applied decoration (Meyer 1988: figs. 6:O; 8:J).

Sardis: Another example comparable in profile to G224 comes from a dump of early Roman and Early Byzantine material at Sardis, and is identified as a “Shallow Bowl with Waisted Rim”. The walls of this bowl appear much thicker than the Tall Jawa fragment (von Saldern 1980:62; pl. 24:391).

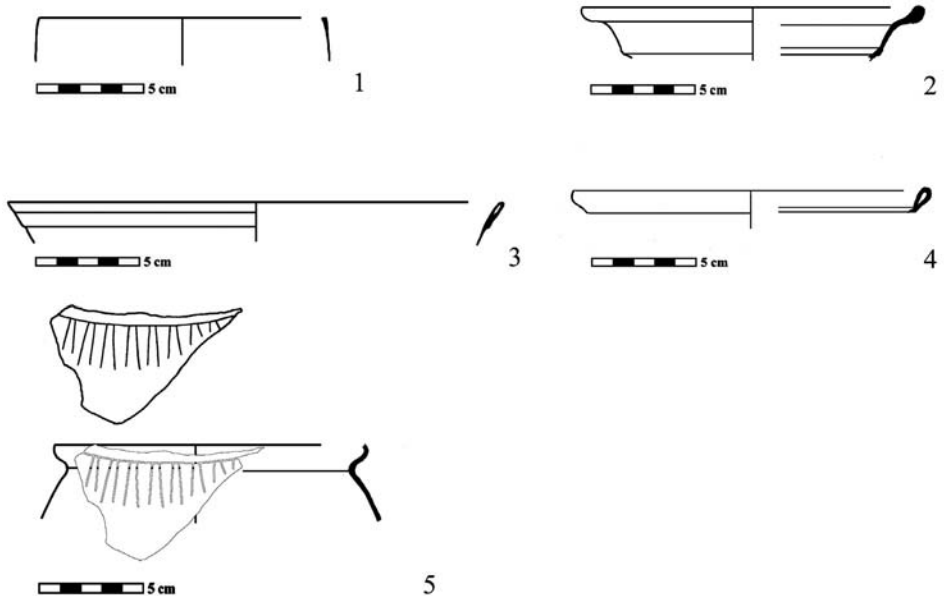


Figure 14.2. Bowls. 1) G161; 2) G224; 3) G17; 4) G222; 5) G63.

B-2. Large Bowls

Rims of bowls come in a variety of profiles, yet there seems to be a continuity of forms throughout the Roman and Byzantine periods and into the Umayyad period. Byzantine bowls from 'Ayn az-Zâra have gently sloping sides and thickened, incurved rims (Clamer 1997: pl. 24:1–3), whereas bowls from Dhībân have hollow-folded rims, bent sharply inward, similar to Early Byzantine bowls from Jarash (Tushingham 1972: fig. 13:24, 25; Meyer 1988: fig. 6:G–H). An Early Byzantine bowl from Sardis has sloping sides with a hollow-folded rim, an omphalos base, and handles (von Saldern 1980: pl. 23:234).¹¹ This is very similar to a reconstructed bowl from Jarash, fragments of which were found in an Umayyad context (Meyer 1988: fig. 12: T). Large shallow bowls were also part of the Jarash corpus from the North Decumanus area (Kehrberg 1986: fig. 9:39). Tall Jawa bowl G17 described in the following catalogue entry has a hollow-folded rim and sloping sides, but not enough of this vessel is preserved to determine whether it also had handles.

Catalogue

- G17 – G92/7-e. (Fig. 14.2:3; D32:24/40). Flaring hollow-folded rim. D 27.0. Colour 10GY 8/1, light greenish gray.
- G222 – G94/21. (Fig. 14.2:4, C73:3/8). Hollow-folded rim; a very small portion of the body is preserved and bends sharply toward the interior of the vessel; thick pearly patina worn away in some places; D 17.0, H 1.7, W 4.1, T 0.8. Colour 5GY 7/1, light greenish gray.

Parallels

Meiron: A close parallel to Bowl G222 is the large bowl plate with a rolled rim and sharp change of direction immediately below the rim (Meyers *et al.* 1981: pl. 9.13:1).

B-3. Deep Moulded Bowls

Only one example of a deep bowl with moulded ribbing is present in the assemblage. In shape it is similar to ground rim vessels.

¹¹ Von Saldern describes this vessel as a lamp of the “shallow-bowl type.” The diameter of the Sardis bowl/lamp is 11.5 cm, and the diameter of the Jarash bowl is approximately 20.0 cm.

Catalogue

G63 – G91/31-b. (Fig. 14.2:5; D12:15/30). Shoulder fragment with neck constriction; black glass, rough, dark brown patina with flecks of gold colour; mould-blown vertical ribbing on the shoulder; D of neck 12.0, H 4.3, W 8.0.

Parallels

Jarash: Six ground rim vessels were found in Early Byzantine and Late Byzantine levels at Jarash during Meyer's 1982–1983 excavations (Meyer 1988:189, 197; figs. 6:D–F; 7:gg-ii). An additional cup, incised with a CHI-RHO monogram, was excavated by the British team from the North Theatre and published by Bowsler (Clark *et al.* 1986: fig. 25).

Mezad Tamar: A number of similar cups, at least two of which are decorated, were published from Mezad Tamar with dates ranging from late third to early seventh century (Erdmann 1977:106, 127–128; pl. 5).

Carthage: Mould-blown corrugated (“cockleshell”) decoration has been found on vessels at Carthage, and a ground rim bowl was also reported (Tatton-Brown 1984: figs. 65:13; 66:1).

C. Wine Glasses

Criteria: Wine glasses are distinguished from cups by their stemmed and footed bases. Either a looped or flat foot represents wine glasses in the Tall Jawa corpus. In other publications (Meyer 1988; von Saldern 1980) this type of vessel is called a “stemmed goblet” or simply a “goblet.” Wine glasses are the most commonly preserved form in the Early Byzantine levels at Sardis, and in the Late Byzantine/Umayyad levels at Jarash (von Saldern 1980:53; Meyer 1988:199), but looped and footed bases cannot securely represent more than 1% of the Tall Jawa diagnostic corpus. A simple rim (G289 – G95/28-a, D 8.0) may also have belonged to a wine glass, because it was found in the same locus as a looped base (G290). Other simple rims in the corpus may have also belonged to wine glasses. One in particular, G62 – G91/31, D 8.0, has a glossy exterior and is of fine quality.

C-1. Wine Glasses with Looped Foot

Bases for wine glasses have a hollow or solid stem that flares sharply into a foot, distinguished by a hollow looped edge around the circumference.

This edge was formed by looping the hot glass back under the foot. Although there are more preserved examples of this type of wine glass than the flat footed wine glass (see below), the small number of this type at Tall Jawa in comparison to other sites with parallel examples may be because it is more common as a Late Byzantine form, rather than Umayyad, as suggested by Meyer (1988:199). The Jarash corpus contains fewer Umayyad examples than Late Byzantine, and this is also true for the corpora of Khirbat al-Karak, Sardis, and Shavei Zion. There are, however, two examples published from Yoqne'am (Lester 1996:213; fig. XVII.14:5, 6) and dated to the 12th–13th centuries that appear very similar to G262 and G287 of the Tall Jawa corpus, suggesting that the form may have continued, if only in limited quantity.

A peculiar feature of some of the hollow wine glass stems is the little nub of glass, visible in the bottom of the wine glass bowl, which formed as a result of looping the molten glass back up underneath the foot. This viscous glass must have sunk into the hollow stem forming a little 'bubble' of glass, sealing the bottom of the wine glass bowl and preventing liquid from dripping down the hollow stem.

Catalogue

G150 – G93/1. (Fig. 14.3:1, C17:37/59). Hollow stem; a bubble of glass, which forms the 'top' of the hollow stem, protrudes into the wine glass bowl;¹² glass is heavily pitted; H 1.9. Colour 5GY 6/1, greenish gray.

G262 – G95/14-a. (Fig. 14.3:2; D23:39/65). Hollow stem and looped foot; a portion of the foot was flattened during manufacture; stem is slightly twisted; the wine glass bowl flares widely from the stem; thin and delicate; D of foot 5.0, H 4.5, T edge of foot 0.4, T wine glass bowl 0.1. Colour 10Y 5/1, greenish gray.

G287 – G95/26-a. (Fig. 14.3:3; D31:21/46). Hollow stem and looped foot; a chip in the edge of the foot reveals the hollow loop; stem is slightly twisted (glass "bubble" broken); wine glass bowl does not flare as widely as G262; D of foot 5.0, H 4.0, T edge of foot 0.5, T wine glass bowl 0.2. Colour 10Y 6/1, greenish gray.

¹² A shard from Dhībān is part of a wine glass with the rounded hump of a hollow stem protruding into the wine glass bowl (Tushingham 1972: fig. 13:89). Tatton-Brown (1984:201) mentions that beaded stems from wine glasses at Carthage were separately attached, but this suggestion has not been applied to hollow stems.

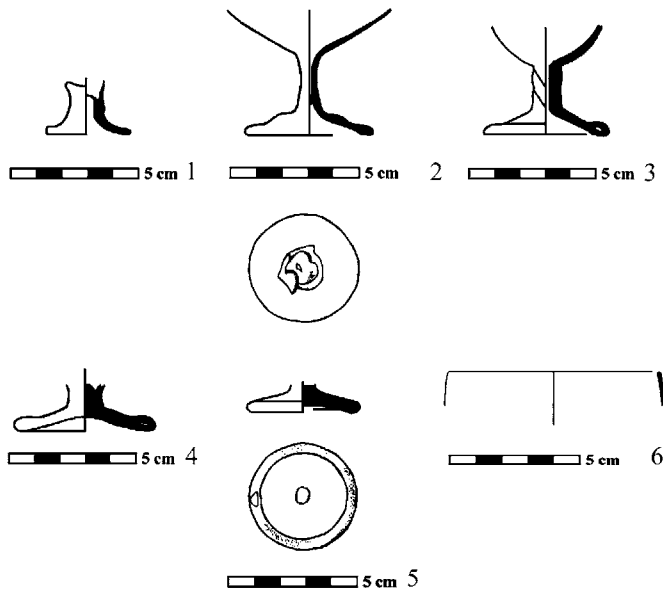


Figure 14.3. Wine glasses. 1) G150; 2) G262; 3) G287; 4) G288; 5) G290; 6) G289.

G288 – G25/27. (Fig. 14.3:4; D31:28/67). Looped, low trumpet foot and short stem; a bubble of glass protrudes into the hollow stem; glass is heavily pitted; D 4.8, H 1.7, T edge of foot 0.3. Colour 5G 6/2, pale green.

G290 – G95/28-b. (Fig. 14.3:5; D21:17/5). Looped foot; very low trumpet. The ridge of glass where the stem broke off indicates that it was hollow, sealed by the glass of the foot; light blue-gray iridescent patina; pitted on the underside; D 4.5, T 0.6. Colour 5G 6/2, pale green. A simple rim (G289 – G95/28-a; Fig. 14.3:6) of the same colour but thinner patination was found in close association with G290 and they likely belong to the same wine glass. D 8.0.

G69 – G91/43. (D2:13/24). Base; stem and looped portion of foot have broken off, but there are remnants of both features; the centre of the base is quite thick, D 3.2, T 0.7, and the glass is thin around the edges of the preserved base, T 0.3, W 3.4. Colour 5G 5/2, grayish green.

Parallels

Jarash: The stemmed goblets with looped feet were found, as a new form, in the Late Byzantine/Umayyad loci at Jarash, and this form was one of the most common for this period. One example at Jarash

also has a deformed foot (Meyer 1988: fig. 8:Z), and Meyer explains this as a result of looping the glass up too vigorously, and notes that it may also serve as an indication of glass production at the site. Whereas the Jarash goblets are commonly light-blue or bluish green (Meyer 1988:199), the Tall Jawa examples are mainly grayish green, with one example being pale green.

Ḥisbân: Wine glasses from Ḥisbân were labelled “standard third to fourth century” forms (Goldstein 1976:130).

Madaba: The Italian excavations in Madaba found three wine glasses from Cistern L and the area immediately south. One of these wine glasses exhibits a looped foot very similar to G287, although the stem appears to be solid, and the bowl of the wine glass appears to be unusually tall. These wine glasses are all described as green in colour (Acconci and Gabrieli 1994: fig. 60:1).

Mount Nebo: Saller (1941:318–319, pl. 140) reports at least 90 wine glass fragments from Mount Nebo, some of which have looped feet. Wine glasses were either blue or green, and the former is predominant while the latter seemed to indicate a vessel with knobbed stem.

Dhībân: A few examples of wine glasses with looped feet and high omphalos bases are illustrated in the report on Dhībân, and date to sometime before the 6th century. In one instance the wine glass has a hollow stem and the hump of the stem extends slightly into the bowl. Wine glasses with flat foot appear to be absent (Tushingham 1972: fig. 13:39, 40, 89).

Khirbat al-Karak: Wine glasses from Khirbat al-Karak were recovered from the Byzantine church (Delougaz and Haines 1960: pl. 60).

Petra: A looped wine glass base with a solid, slightly bulging stem is an example of this style which was found during the Petra Church excavations (O’Hea 2001: fig. 6:17).

Buṣrā: There is one example of a looped foot in the glass corpus of Buṣrā. The foot has a high omphalos, but none of the stem remains (Wilson and Sa’d 1984: fig. 558).

Nazareth: Four wine glasses with high trumpet bases were found at Nazareth. The edges of the feet are thickened and rounded, but they do not appear hollow in the illustrations provided. One wine glass has a hollow stem, while another stem bulges like a single bead (Bagatti 1969:313, fig. 237:29–32).

Beth-Shean: Wine glass stems and bases are represented in both the Byzantine and Umayyad assemblages (Hadad 2006: figs. 19.3:56, 57; 19.4:78).

Shavei Zion: Parallel examples have been found at Shavei Zion, dating to the fifth and sixth centuries (Barag 1967: pl. 16).

Tirat ha-Carmel: Among the Roman and Byzantine vessels are several ‘goblet’ or wine glass bases, one is assigned an Umayyad date (Pollak 2005: fig. 4:38) and serves as a parallel to G150.

Sardis: Goblet fragments having feet which were “occasionally” folded but rarely “domed” are reported as being found in safely datable Early Byzantine levels (von Saldern 1980:55).

*C-2. Wine Glasses with Flat Foot*¹³

Wine glasses with flat foot have been recovered from many sites throughout the Near East, and in some cases are recorded as having variations in the shape of the foot. At Jarash, one example has an octagonal base (Meyer 1988:199; fig. 9:B), while another foot shows evidence of tooling (Meyer 1988: fig. 9:A). Tooled feet have also been recovered from Karanis (Egypt) and dated to the fourth and fifth centuries (Harden 1936:167, pl. 16), from Alexandria, in fifth to early seventh century contexts (Rodziewicz 1984: pl. 73), and a nearly complete example was excavated by Cooney (1976:106) at El-Amarna, with the foot described as having ‘straw-marks’ from criss-cross tooling. In addition, some stems of wine glasses with flat foot have a bulge or bead. There is one example of a bulging wine glass stem in the Tall Jawa corpus (G243). Additionally, G251 – G95/2 (Fig. 14.4:1) is a solid, thin, twisted stem, 1.6 cm long and 0.9 cm in diameter, and may also belong to a wine glass. This example is similar to von Saldern’s wine glass with a “multi-knobbed stem” (1980:54; pl. 12:367), but is more gently twisted and has a smoother profile. This type of wine glass is described as a typically Byzantine form (Barag 1983:38), but its use continues into the Umayyad period, at least at Jarash and Tall Jawa.

¹³ The following examples from Tall Jawa have been designated as wine glasses. Other forms, such as lamps that sit on flat feet, have also been published. For example, in his report of the glass vessels at Jarash, Baur (1938:524–525) illustrates a reconstructed vessel with a “looped-out” rim, three handles in the fashion of tumbler lamps (described below), a solid stem and a flat foot. In view of this, Harden (1972:81) suggested that this type of lamp appeared as a new form in the fifth century. The discovery of a number of these lamps at the Beirut workshop demonstrated that their floruit was in the 6th–7th centuries. However, the bases of the Beirut lamps are not flat, but are looped wine glass bases with a short stem (Foy 2000:251). The presence at Tall Jawa of a number of low trumpet bases, a form also seen on tumbler lamps in Jordan, suggests it is likely that the stemmed vessels with their flat feet do in fact belong to the class of wine glasses.

Catalogue

G32 – G92/13. (Fig. 14.4:2; D31:18/36). Flat foot, stem not preserved; low trumpet base; D 4.1, T 0.3. Colour 5G 7/2, pale green.

G243 – G94/64-b. (Fig. 14.4:3; D14:14/18). Wine glass stem with one bead; covered with a dirty, pearly patina which has worn away in some places; attached bowl and foot fragments are thick and chunky; W of bead 1.2, H 2.5, T 0.5. Colour 5G 4/2, grayish green.

G285 – G95/25-a. (Fig. 14.4:4; D31:27/66). Low trumpet base; broken so that only a ‘semi-circle’ remains; glass swells toward the centre where it would have continued into a stem; thick, solid glass; D 5.0, T 0.2. Colour 5GY 8/1, light greenish gray.

Parallels

Jarash: Wine glasses with flat foot have been published by both Baur (1938:523–527) and Meyer (1988:199, 201, 211–212; figs. 9A–D). In fact, Baur published only this type of wine glass, from St. Theodore’s and the Fountain Court, and dated it to the fourth or fifth century. Meyer published four examples, three of which have a short stem with a bulge in the middle, from Late Byzantine/Umayyad loci, and five from Umayyad levels in the Bishop Isaiah church.

Madaba: One of the three wine glasses found during the Italian excavations has a flat foot. The wine glass bowl of this example flares quite widely from the stem, which is solid. Additionally, the thickness of the wine glass bowl appears to be much greater near the stem, becoming thinner as it flares outwardly (Acconci and Gabrieli 1994: fig. 60:3).

Khirbat al-Karak: A number of “flat feet” were recovered from the Byzantine Church and Tomb 4; in some cases, the lower portion of the wine glass bowl is preserved (Delougaz and Haines 1960: pls. 50, 60).

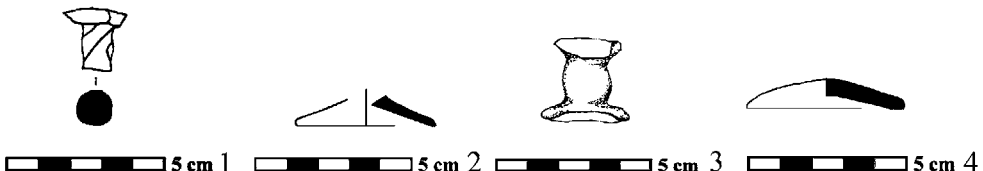


Figure 14.4. Wine glasses. 1) G251; 2) G32; 3) G243; 4) G285.

Kursi: One stem, which appears similar to G243, is thick and bulging, and dates to the sixth–early seventh century (Barag 1983:38; fig. 9:9).

Buṣṣā: Four examples of bulging wine glass stems with flat feet are illustrated, three of which have low trumpet bases, while the fourth is very flat (Wilson and Sa‘d 1984: figs. 556, 557, 559, 560).

Beth She‘arim: A nearly identical parallel to G243 is illustrated by Barag from Beth She‘arim, and is described as “broken stem of a wine cup . . . light bluish green.” The date of this stem, found in Catacomb 20, could not be accurately assigned (Barag 1976:205; fig. 98:5).

Beirut: Only two relatively flat bases, irregular in shape, have been reported; in both cases, they appear to have a very short stem (Foy 2000: fig. 26:1, 2).

Sardis: von Saldern notes that goblets with flat feet comprise the bulk of the goblet corpus at Sardis, and that they are less carefully made than any other of his seven goblet types (1980:56).

Karanis (Egypt): Stemmed goblets from Karanis, dated to the fourth and fifth centuries, have flat, tooled feet, and bowls with straight sides. Some examples have thread decoration (Harden 1936:167; pl. 16).

Carthage: Goblets with beaded stems were reported at Carthage, as well as one extant bead from a goblet stem, 1.2 cm in diameter (Tatton-Brown 1984:201; fig. 66:45).

D. Goblets

Criteria: Goblets, or “beakers” (Meyer 1988:189), are deep, open vessels, with slightly thickened flaring rims, eggshell thin conical bodies, and thick bases that may be looped in a similar fashion to the wine glasses with looped foot. In Meyer’s report of the glass from Jarash, a thick looped base was described as being found with beaker fragments, and was accordingly thought to have belonged to this vessel type (1988: fig. 6:A). At Tall Jawa, a very similar base was found (G70) in the same locus as some eggshell thin body fragments.

D-1. Cylindrical Goblet with Everted Rim

Delicate everted rims and looped goblet bases have appeared in earlier periods at comparable sites, some dated as early as the beginning of the second century (Lapp 1983: figs. 19:7, 13, 14; 24:22). Many published examples are given wide date ranges, but they do not seem to extend beyond the seventh century.

Catalogue

G70 – G91/44-a. (Fig. 14.5:1, M2:13/25). Base with looped edge; fairly flat; glass is thick in the centre of the base; D 5.0, T 0.5. Colour 5G 6/2, pale green.

G204 – G94/5. (Fig. 14.5:2; D14:5/6). Everted, thickened rim; D 8.0, H 1.3, W 3.4. Colour 5G 7/2, pale green.

G293 – G95/31-a. (Fig. 14.5:3; D21:17/8). Base with solid edge and a ridge at the point where body of vessel has broken away; D 5.0, T at edge of base 0.4. Colour 5PB 4/1, dark bluish gray, and covered with dark bluish gray patina.

Parallels

Jarash: Rims similar to G204 have also been discovered at Jarash (Meyer 1988:197; fig. 8:A–C), in both Early and Late Byzantine contexts. Each of the three examples from Jarash measures approximately 8.0 cm, and one has trailed thread decoration just below the rim (Meyer 1988: fig. 8:B). Four of the Early Byzantine bases are omphalos in shape, while two are flat (1988: figs. 5:V, Z-aa; 6:A,B), comparable to the Tall Jawa examples.

ʿAyn az-Ẓāra: Several rims similar to G204, and the following parallels, were published from the Early Byzantine period. A number of straight goblet rims with trailed thread decoration were also reported (Clamer 1997: pl. 25:12, 13, 15, 17, 18).

ʿAraq al-Amir: A few delicate flaring rims which may have belonged to goblets and several looped bases were illustrated from ʿAraq al-Amir and dated to the first half of the second century or later (Lapp 1983: figs. 19:7, 12, 13, 14; 20:10; 24:22).

Dhībân: One looped, low omphalos base from Dhībân is typologically similar, although it is described as belonging to a “wine-glass.” Two everted rims are also similar to the goblet rims described in this section. Glass from Dhībân was found in loci of infill containing debris from the destruction of the North Church, which occurred sometime in the 6th century or earlier (Tushingham 1972: fig. 13:7, 8, 28).

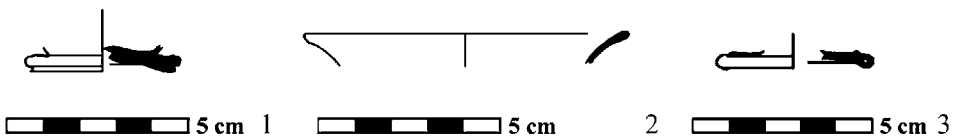


Figure 14.5. Goblets. 1) G70; 2) G204; 3) G293.

Nazareth: A thick, omphalos base similar to G293 is illustrated but is described as the “bottom of a drinking glass” (Bagatti 1969:313; fig. 237:26).

Mezad Tamar: Several flaring rims and low bases are dated between the late third to early seventh century (Erdmann 1977: 114, 132; pls. 1, 6).

Sardis: Two bases in particular resemble the Tall Jawa examples, one of which is dated to the sixth century (445), the other from a level containing both Byzantine and Islamic material (447) (von Saldern 1980:66; pl. 24:445, 447).

Carthage: Beginning in the fifth century, similar rims became common at Carthage, along with looped bases which continued into the seventh century (Tatton-Brown 1984:19, 197; figs. 65, 66).

E. Jars

Criteria: Jars are open-mouthed vessels used for storage, and were manufactured in a variety of shapes and sizes. Jars are scarce at Tall Jawa, and indeed they do not seem to be well-represented in Umayyad levels at comparable sites. There are seven jars illustrated in Meyer’s Jarash report, only three of which are said to be from Umayyad loci, the rest from later levels (1988:212; fig. 12:F–L). Jars were retrieved from both the Byzantine Church and the Umayyad building at Khirbat al-Karak (Delougaz and Haines 1960: pl. 60), and more Byzantine examples are published from Sardis (von Saldern 1980:79–81; pl. 27), ‘Araq al-Amir (Lapp 1983:43–62), and a single example from Khirbet ed-Deir (Cohen 1999:149; pl. 1:4).

E-1. Open Mouth Jars

The jars in the Tall Jawa corpus are small and delicate, and have wide mouths equal to or slightly smaller in diameter than the body of the vessel, with subtle neck constrictions.

Catalogue

G248 – G94/78-a. (Fig. 14.6:1; D33:27/53). Outplayed rim; glass has a thick, white patina; D 9.0. Colour 5B 8/1, light bluish gray.

G272 – G95/17-b. (Fig. 14.6:2; D23:39/68). Rim, thickened, then pinched, then thickened again; very slight neck constriction; D 8.0. Colour 5G 6/2, pale green.

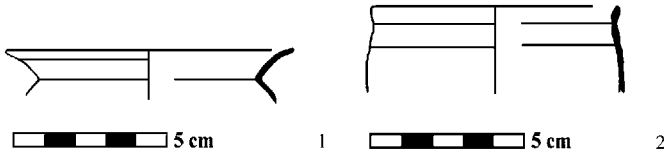


Figure 14.6. Jars. 1) G248; 2) G272.

Parallels

Jarash: One Early Byzantine rim fragment at Jarash provides a very good parallel for G248 in profile, but is unusual because it has an applied purple strip on the lip (Meyer 1988:193; fig. 6:W).

Dhībān: Debris from the destruction of the North Church, which did not survive beyond the 6th century, included three examples of open mouth jars, one of which sports an everted rim. A fourth, smaller jar has a dramatic neck constriction (Tushingham 1972: fig. 13:22, 31, 32, 33).

Kursi: One jar is illustrated in the corpus from Kursi which has a flaring rim with a short neck, a squat, rounded body, and an omphalos base. The rim of this jar is folded inward. A second rim, also folded inward and appearing similar to those bottles with in-rolled rims (described below), is described as belonging to a jar. These examples date to the seventh century (Barag 1983:38; fig. 9:7–8).

Busrā: The rim of a rounded vessel has the same ‘pinched’ style as fragment G272 (Wilson and Sa’id 1984: fig. 550).

Carthage: One jar fragment with “outsplayed,” thickened rim, constricted neck, and sloping shoulder. Rim is 5.4 in diameter (Tatton-Brown 1984: fig. 66:38).

F. Bottles

Criteria: Bottles are closed vessels used to both dispense and store a volume of liquid. They are the most frequent type of Roman and post-Roman glass vessels (von Saldern 1980:69), and come in a great diversity of forms and variations. Diagnostic shards from Tall Jawa represent at least six different types of bottles; one of which appears unique while the others are continuations of Roman and Byzantine forms.

F-1. Bottles with In-Rolled Rim and Flaring Mouth

Bottles with a flaring mouth have a distinctive rim, which is tightly rolled inward toward the mouth of the vessel. In the Tall Jawa corpus

there are no necks attached to these rims. Meyer postulates that this type of bottle likely had a long neck, round body, and omphalos base (Meyer 1988:202). This type of bottle was frequently found at Jarash, with some fragments recovered from the Late Byzantine loci, and many examples dating to the Late Byzantine/Umayyad periods (Meyer 1988:202). Examples from Tomb E 220 at Samaria, dating to the third century, and from Roman levels at 'Ayn az-Zâra, indicate the long life of this form (Crowfoot 1957b:408–410; fig. 94: 6, 10; Clamer 1997: pls. 23:3–4; 27:4–6).

The diameters of the following rims were measured using the lips of the rims, and as such are maximum measurements and do not necessarily reflect mouth diameters. Because the necks were not preserved, minimum mouth measurements are not available.

Catalogue

G52 – G91/14-a. (Fig. 14.7:1; D2:7/13). In-rolled rim; D 7.0, H 1.9, W 2.3. Colour 5G 7/2, pale green.

G5 – G92/3-c. (Fig. 14.7:2; D32:12/29). Flaring, in-rolled hollow rim; the rim was not tightly rolled; D 9.0, H 1.1, W 2.8. Colour 10GY 8/1, light greenish gray.

G28 – G92/11-a. (Fig. 14.7:3; D31:19/37). In-rolled rim; thick light blue-gray metallic patina; D 6.0, H 1.8, W 2.6. A second shard, G29 – 92/11-b, shares the same diameter and characteristics of the patina as G28, but is a folded rim and does not appear to mend with G28.

G201 – G94/1-b. (Fig. 14.7:4, T1:7/20). Everted, in-rolled rim with partial neck preserved; D 3.0. Colour 10YR 4/4, yellow; the glass has a bright, iridescent patina.

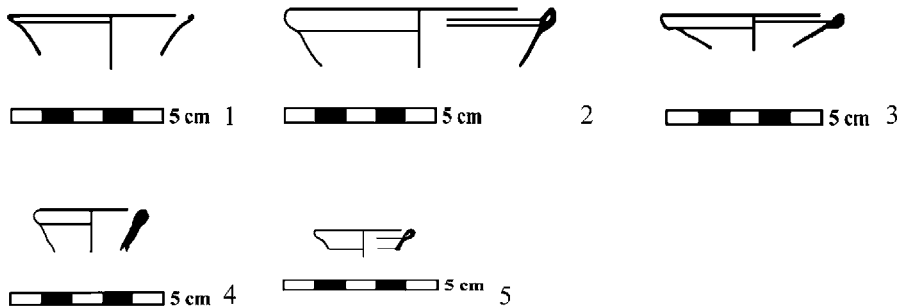


Figure 14.7. Bottles with in-rolled rims. 1) G52; 2) G5; 3) G28; 4) G201; 5) G226.

G226 – G94/23. (Fig. 14.7:5; D33:17/26). Everted, in-rolled rim; milky patina; D 3.0, H 1.0, W 1.9. Colour 10G 8/1, light greenish gray.

Parallels

Jarash: Five examples dated to the Late Byzantine/Early Umayyad period are illustrated in Meyer's report, and she notes that some fragments were recovered from Late Byzantine loci, but most were dated later, into the Umayyad period (Meyer 1988:202; figs. 9:O–S). One flaring rim dated to the Umayyad period is tentatively described as belonging to a perfume flask and is an unusual amber colour, similar to G201. Baur published one example from St. Theodore's Church (1938:532, 539).

Ayn az-Zāra: Bottles with in-rolled rims and flaring mouths were found in Roman and Byzantine levels in Building A (Clamer 1997: pls. 23:3–4; 27:4–6).

Araq al-Amir: At least one example was recovered from 'Araq al-Amir (Lapp 1983: fig. 24:26).

Khirbat al-Karak: Similar rims were found in Byzantine Tomb 7 at Khirbat al-Karak (Delougaz and Haines 1960: pl. 50).

Mezad Tamar: Examples from Mezad Tamar date between the late third and early seventh century (Erdmann 1977:106, 125–125; pl. 4).

Busrā: A vessel with a narrow neck and wide flaring rim (Wilson and Sa'ad 1984: fig. 568) is a good parallel to the shape and stance of G28.

F-2. Bottles with Straight Mouths

The rims of the bottles with straight mouths are comparable in diameter to the small cups described above, and they are slightly thickened. The walls of the neck are conical and the thickness of the glass decreases as the neck tapers slightly toward the body. The examples of this type of bottle from Tall Jawa have only the rim and a portion of the neck, and are most similar to von Saldern's bottles with conical necks. The body shape is unknown, but von Saldern states that this type of bottle may be cylindrical, oval, ovoid, or spherical (1980:69–71).

Catalogue

G76 – G91/49. (Fig. 14.8:1, M2:17/37). Simple rim; eggshell thin; D 5.0, H 1.9. Colour 5G 6/2, pale green.

G16 – G92/7-d. (Fig. 14.8:2; D32:24/40). Slightly thickened rim and conical neck; D 6.0, H 4.3. Colour 10GY 8/1, light greenish gray.

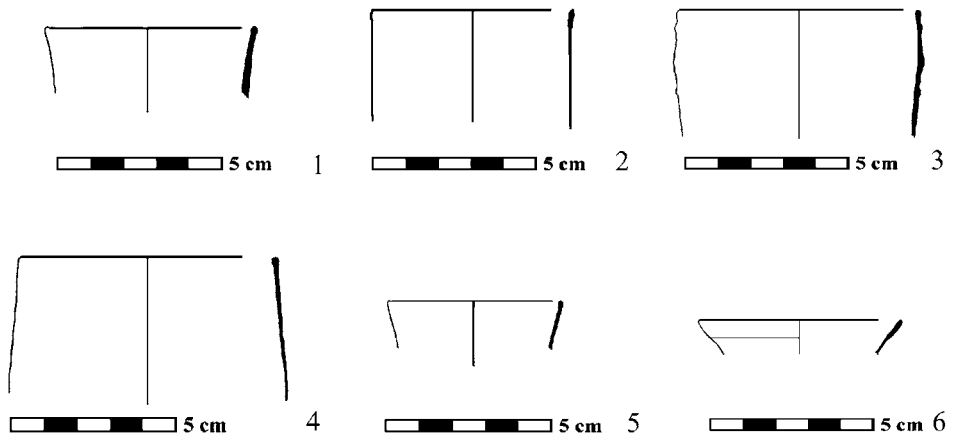


Figure 14.8. Bottles with straight mouths. 1) G76; 2) G16; 3) G154; 4) G179; 5) G210; 6) G259.

G154 – G93/5. (Fig. 14.8:3; D32:Wbalk/65). Simple rim; D 7.0; ridge below the lip and mould-blown “wave” decoration on the neck. A cylindrical vessel with a ‘honeycomb’ pattern; D 7.0, H 6.1. Colour 5G 7/2, pale green.

G179 – G93/18. (Fig. 14.8:4; D22:18/35). Thickened rim; D 8.0, H 3.6. A suitable Munsell colour code could not be obtained; the glass is clear with a yellowish tinge.

G210 – G94/12-b. (Fig. 14.8:5; D14:1/9). Simple rim; D 6.0, H 1.7. The glass is colourless with a white, iridescent patina.

G259 – G95/11. (Fig. 14.8:6; E53:7/64). Simple rim slightly flaring from neck; D 6.0, H 1.9. Colour 10G 8/1, light greenish gray.

Decoration: No suitable comparable material is available for the type of decoration seen on G154, and while mould-blown decoration is well known, it usually occurs as ribbing.¹⁴ A vessel fragment with mould-blown honeycomb decoration illustrated in von Saldern’s Sardis publication comes closest to a parallel (1980: pl. 18:794). A 5th–6th century blown, pattern-moulded chalice or “footed bowl” in the Khalili collection (Goldstein 2005: fig. 51) is also a good example of the technology used to produce G154.

¹⁴ Although Lester (1996:214; fig. XVII.15.2) indicates that the honeycomb pattern is prevalent among examples of Early Islamic mould-blown glass, a shard with this pattern was recovered from Yoqne’am together with ceramic material dating to the 12th century.

Parallels

ʿAyn az-Zāra: Five examples (rims and necks) of bottles with straight mouths are illustrated, two of which have thick, applied thread decoration. The bottles are green, and in one case yellowish green, and were found in Early Byzantine levels in Building A (Clamer 1997: pl. 27:1–2b).

Kursi: Two bottles in the Kursi corpus have conical necks with thread decoration. The shoulders of one example (No. 2) indicate an ovoid body shape, while the rim of the second example (No. 3) is in-rolled (Barag 1983:37; fig. 9:2–3).

Nazareth: A number of bottle types were recovered from excavations at Nazareth, and at least three examples fit this classification, one of which has thread decoration on the neck (Bagatti 1969:312–313, fig. 237:6, 17, 21).

Yōqneʿam: One Early Islamic bottle neck was recovered that is typologically similar (Lester 1996: fig. XVII.4.1).

Buṣrā: A vessel with a cylindrical neck and slightly thickened rim (Wilson and Saʿd 1984: fig. 563) is a good parallel to the shape and stance of G16. Close in shape to G210 is the rim and neck of a flask, with trailed tread decoration around the neck (1984: fig. 566).

Sardis: Bottles from Sardis with ovoid, oval, or spherical body shape parallel rim profiles, conical and sometimes slightly flaring. This type of bottle was found frequently at Sardis and appears to be a continuation of a late and post-Roman form (von Saldern 1980:69–70; pl. 26:476–478, 480, 488).

Corinth: Two Byzantine bottles are shown with a series of threads applied around the conical necks (Davidson 1952: pls. 59:793, 60:794).

F-3. Bottles with Loop-Folded Rims

Loop-folded rims, distinguished by a thick, rounded lip with a hollow tube in the centre and formed by looping the glass while still soft, were encountered on tumbler lamps, but the glass of the lamps is looped outwardly, away from the interior of the lamp. The closest parallel to this rim profile is bottles from Sardis (von Saldern 1980: pl. 26:506). The walls of the neck are thin and the rim is quite rounded, similar to the Tall Jawa examples, however, von Saldern's parallel does not appear to be hollow, and could be an in-rolled rim.¹⁵ Due to the lack of parallels, the shape of the neck and body of this type of bottle is unknown.

¹⁵ Von Saldern describes this rim as "in-folded," and it belongs to his bottles with "Wide Funnel Necks" (1980:73).

Catalogue

G72 – G91/45-a. (Fig. 14.9:1, M2:15/28). Loop-folded rim; D 5.0, H 1.8, T 1.6. A suitable Munsell colour code could not be obtained; the glass is pale blue.

G77 – G91/50-a. (Fig. 14.9:2 D2:18/39). Loop-folded rim, no part of the neck is preserved; D 5.0, H 1.8, W 1.7. A suitable Munsell colour code could not be obtained; the glass is pale blue.

G72 and G77 are very similar in both colour and form and could be fragments of the same vessel, although they were not found within a close proximity of each other.

G282 – G95/22-a. (Fig. 14.9:3; D31:24/63). Loop-folded rim; fold is curled away from the mouth of the bottle; D 6.0. Colour 10G 7/1, light greenish gray.

F-4. Long-Necked Bottles

There are only four preserved fragments of long-necked bottles in the Tall Jawa corpus, although this type of bottle appears to be abundant in the Late Byzantine/Umayyad loci of various other sites in the Near East (Delougaz and Haines 1960: pls. 50, 59; Tatton-Brown 1984:202–204; Meyer 1988:202; fig. 9:V). At Bethany, long-necked bottles were recovered from contexts as early as the second to fourth centuries (Saller 1957:169, 328), and long-necked bottles dating to the Byzantine period were recovered at Sardis (von Saldern 1980:70–72; pl. 26). In each of these cases, at least some of these bottle necks have preserved traces of trailed thread decoration. At Tall Jawa, there are some very small shards of glass that have trailed thread decoration, (G91/32, G91/35, G94/22, G94/38-b, G95/54-g), and these shards may have belonged to long-necked bottles.

Catalogue

G20 – G92/9-a. (Fig. 14.10:1; D32:22/38). Neck fragment; the neck bulges (there is a constriction at the base of the neck), and leads sharply into the shoulder of the bottle; no traces of trailed thread decoration; interior D 2.0, H including shoulder 2.9. Colour 10G

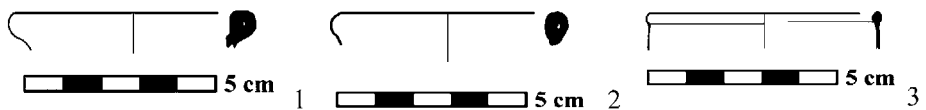


Figure 14.9. Bottles with loop-folded rims. 1) G72; 2) G77; 3) G282.

8/1, light greenish gray. A body fragment, 92/9-b, of the same colour and of a similar curvature as G20 may be a fragment of the same neck, and measures 3.7 cm in height.

G321 – G94/64-b. (Fig. 14.10:2; D14:14/18). Neck fragment with one horizontal ridge of applied trailed thread decoration; D 2.0, H 3.0. Colour of neck fragment 5G 7/2, pale green. Colour of ridge decoration 10Y 3/1, dark greenish gray.

G322 – G94/61-a. (Fig.14.10:3; D23:30/51). Narrow neck fragment with simple rim; very plain; D approximately 1.8, H 3.8. Colour 10GY 8/1, light greenish gray.

G278 – G95/21-a. (Fig. 14.10:4; D31:24/57). Neck fragment with applied ridge along uppermost portion of the rim gives a flared profile and creates the illusion of a constricted neck; D 4.0. Colour 5GY 7/1, light greenish gray.

Parallels

Jarash: A cylindrical neck and shoulder shard from the North Theatre was formed using a similar technique which resulted in a slight compression above the change of direction at the top of the shoulder (Meyer 1988: fig. 9:T; Clark *et al.* 1986: fig. 22:bb).¹⁶

ʿAyn az-Žāra: Two examples of long-necked bottles were recovered from Roman levels, and Early Byzantine levels yielded at least four, one of which has applied decoration, and another shows a constriction at the base of the neck (Clamer 1997: pls. 23:2; 27:8–12).

Umm al-Rasas: Threads on the neck of a small vessel from the Church of Saint Stephen demonstrate the use of this form of decoration over an extended period of time (Alliata 1991: fig. 19:28=1994:21)

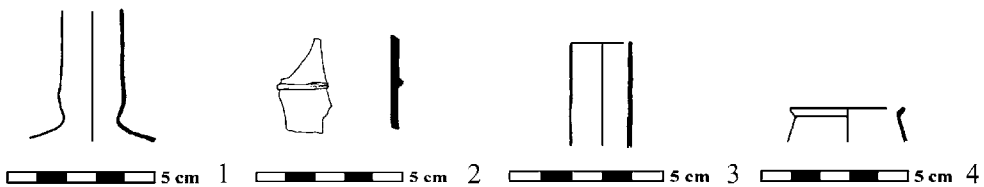


Figure 14.10. Long-necked bottles. 1) G20; 2) G321; 3) G322; 4)G278.

¹⁶ The cylindrical neck shard is described by Meyer as that of an Umayyad flask (1450) and assigned figure reference “22:cc” in the captions (Clark *et al.* 1986:263).

Yoqne'am: An example of a bottle neck with slightly tapering sides and traces of shoulder is decorated with vertical grooves and belongs to a group of cut glass from the Early Islamic period (Lester 1996: fig. XVII.10.4).

Jalame: Trails, or glass threads, present on the neck of jugs, or small bottles, dated to the Roman period, are not uncommon in the repertoire from the Jalame glass factory (Weinberg 1988: fig. 4–8:217,224).

Beth She'arim: One example from Beth She'arim closely resembles G20, with a constriction at the base of a cylindrical neck. The Beth She'arim example has rounded shoulders that suggest an ovoid body shape (Barag 1976:201; fig. 97:17).

Khirbet el-Shubeika: One example of a long-necked bottle has a trailed thread decoration spiralling around the neck (Gorin-Rosen 2002: fig. 60).

Special Features

There are a number of special features or surface treatments present on the bottles from Tall Jawa. Certain of these features may occur on other forms; those found on bottles include ruffles¹⁷ and ring handles. Characteristic of particular bottle types is the omphalos base.

Ruffles: The term “ruffle” describes a type of decoration, usually applied to the necks of tall bottles, where a glass strip has been applied in a “wave” like fashion. One example from Tall Jawa has a diameter of 7.0 cm (G217) and may have been applied around the body of a bottle rather than the neck. This type of decoration has a long history, and can be found on bottles dating from the Early Byzantine to the Mamluk period, and on bottles from a number of sites in the Near East (Baur 1938:534–535, 543; Saller 1941:320; pl. 141; Fontaine 1952:79; pl. 4; Riis and Poulsen 1957:60–61; Crowfoot 1957b:418; Delougaz and Haines 1960: pl. 59). Bottles with ruffle decoration are not present at Beirut or at Sardis.

¹⁷ Ruffle decoration also occurs on other vessel types. From Umm al-Rasas, a rolled-rim chalice (D 12.0 cm) with a ruffle around the middle was recovered with other glass shards and a hollow lamp stem in a collapsed debris layer of Stratum G (Alliata 1991: fig. 19:6).

Catalogue

G180 – G93/19. (Fig. 14.11:1; D23:11/21). Bottle neck with ruffle decoration; D 4.0, H of preserved bottle neck 3.8. Colour 5G 7/1, light greenish gray.

G217 – G94/15-d. (Fig. 14.11:2; D23:3/32). Ruffle decoration; thick; D 7.0, H 1.7, T 0.9. Colour 5G 7/2, pale green.

G249 – G95/13-a. (Fig. 14.11:3; D23:39/65). Small fragment of ruffle decoration with tiny fragment of neck preserved; W 1.4, H 0.4; dark colour; delicate. Colour of neck 10GY 8/1, light greenish gray. Colour of ruffle 10Y 3/1, dark greenish gray.

Parallels

Jarash: Three examples of ruffles come from Late Byzantine/Umayyad loci (Meyer 1988: figs. 10:C–E),¹⁸ while several others dated earlier were reported by Baur (1938:534–535).

Khirbat al-Karak: Two glass neck fragments from the church each have an attached ‘undulating’ band (Delougaz and Haines 1960: pl. 59:27, 29).

Beth She‘arim: Barag illustrates two bottle necks with ruffle decoration. The neck of one example is described as pale blue-green, while the ruffle decoration is green and red (1976: pl. 59:27, 29).

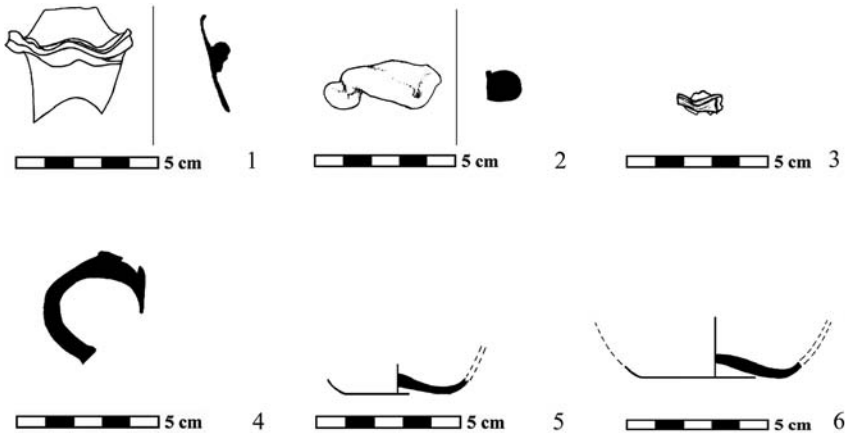


Figure 14.11. Special features. 1) G180; 2) G217; 3) G249; 4) G37; 5) G205; 6) G306.

¹⁸ In order to correspond to the text and the captions, Meyer 1988: Fig. 10 should be renumbered Fig. 11 and vice versa.

Khirbet el-Shubeika: There are at least two examples of ruffle decoration from Khirbet el-Shubeika. One example is shown around the neck of a bottle while the other has broken away from its corresponding vessel (Gorin-Rosen 2002: figs. 61, 62).

Buṣrā: A cylindrical fragment with a horizontal ruffle in bluish-green glass serves as a parallel to the Tall Jawa fragment; in both cases, the complete vessel form cannot be confirmed (Wilson and Sa'd 1984: fig. 567).

Ring Handle: There is one handle (two mendable shards) in the Tall Jawa corpus that is nearly identical to the type found on two-handled bottles. These bottles, examples of which were found at Nessana (Harden 1962: pl. XX:58) and Beth She'arim (Barag 1976:203; fig. 97:29), have in-rolled rims, elongated necks, rounded shoulders, and omphalos bases. Their distinguishing feature is a pair of two ring-shaped handles that extend symmetrically from the shoulder of the bottle to the middle of the neck. The distinctive characteristic of these handles is the ledge-like projections that stretch outwards where the handles attach to the body. The presence of a very similar handle in the Tall Jawa corpus indicates there was at least one example of a two-handled bottle at the site.

Catalogue

G37+38 – G92/15-a+b. (Fig. 14.11:4; D31:19/38). Sharply curved handle fragment with a metallic, iridescent patination; small ledge-like protrusion from one end; two mendable fragments; H 3.4, W 1.0. A suitable Munsell colour code could not be obtained.

Parallels

Jarash: Two ring handles were recovered at Jarash, one each from Baur's and Meyer's excavations. The ring handle published by Baur is described as "scalloped" (1938:528; fig. 22:57), and Meyer notes that her handle, from a Late Byzantine locus and more pinched than the Tall Jawa example, might have belonged at the constriction between the body and neck of a squat jar (1988:198; fig. 8:U).

Beth She'arim: The handle of the nearly complete two-handled bottle from Beth She'arim provides the closest parallel in form to G37 (Barag 1976: fig. 97:29; pl. LXVIII:6).

Beth-Shean: One example of an elaborate ring handle is assigned to the Umayyad period (Hadad 2006: fig. 19.4:77).

Beirut: Two ring-shaped handles still attached to a neck shard were identified as “ring or closed loop” handles. Two other examples were also reported from the souks area excavations of the Byzantine buildings and from the Roman period remains (Jennings 2006: fig. 8.13).

Sardis: Von Saldern published a photograph of a Roman period glass skyphos from the Museum of Fine Arts, Boston, with ring handles that have ledge-like projections. This vessel shows an earlier use of this handle form. One ring handle “with thumb rest” from Sardis (1980:11; pl. 2:26) is attached to a portion of curved wall. It is very similar to G37 and also appears similar to the handle from Beth She‘arim.

Corinth: At least two ring handles similar to G37 were found at Corinth. These handles are described as belonging to undecorated free-blown cups distinguished by rounded rims and straight sides that curved into tubular base rings. The handles would have attached just below the rim. Cups of this description are dated to the 11th/early 12th centuries (Davidson 1952: fig. 12:724).

Bases: Many bottle types have omphalos bases. Two omphalos bases in the Tall Jawa corpus may belong to bottles because their walls do not flare widely, but rather rise sharply upwards, indicating cylindrical body shapes.¹⁹

Catalogue

G205 – G94/7. (Fig. 14.11:5; D13:1/3). Omphalos base; thicker in the centre; D approximately 5.5, T in centre 0.4, T of walls 0.2. Colour 5BG 8/1, light greenish gray.

G306 – G95/52-c. (Fig. 14.11:6; D13:56/82). Omphalos base; pontil ridge on the exterior of the base, in the centre; D approximately 6.0, T in centre 0.5, T of walls 0.3. Colour 5G 5/2, grayish green.

Parallels

Jarash: One comparable example of an omphalos or “kick-up” base with a cylindrical body is illustrated along with several bases with more rounded bodies (Meyer 1988: fig. 10:Y).

¹⁹ Ceramic bottles with a cylindrical body shape are also found in the ceramic corpus from Building 600.

G. Unguent Bottle

Criteria: This type of bottle has a neck with a very small diameter, and a wide flat rim. The form of the unguent bottle allowed the liquid inside to be dispensed slowly, as the narrow neck would have diminished the flow of the liquid, and the wide, flat rim made it possible to pour the liquid in drops (Baur 1938:519). The shape of the body of the Tall Jawa example is unknown, but examples of a similar type of “miniature” bottle were discovered at Sardis in Early Byzantine levels, with oval, conical, and “candlestick-like” bodies (von Saldern 1980:78–79).

Catalogue

G270 – G95/16. (Fig. 14.12:1, B65:15/23). Slender, cylindrical neck that trumpets into a wide, flat rim; the rim is folded on top of itself and the fold is pulled down slightly into the neck; D 3.5, D of neck 0.5, T of rim 0.5. Colour 5G 7/2, pale green.

Parallels

Jarash: One parallel example was recorded from Baur’s excavations at Jarash (Baur 1938:519). It is described as having a long, narrow neck and is dated to the 4th–5th centuries. Meyer records two examples from Jarash, noting that the glass is of Byzantine or later fabric. Additionally, a ‘perfume flask’ with ‘folded-in rim’ and dating to the Umayyad period is similar to the earlier unguent bottles at Jarash, suggesting the form may have remained in use (Meyer 1988:198, 212; figs. 8:H, I, 12:N).

Khirbat al-Karak: Further parallel examples were found at Khirbat al-Karak in Byzantine Tombs 4 and 7 (Delougaz and Haines 1960: pl. 50), and another was found in an Umayyad building (Delougaz and Haines 1960: pl. 60).

Kursi: One rim, described as “folded outward, inward, and flattened on top” is very similar to G270. The neck belonging to this rim, however, is approximately 1.0 cm greater in diameter, and the body of the bottle is large and round—quite different from the unguent

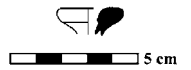


Figure 14.12. Unguent bottle. 1) G270.

form. A second bottle also has a similar rim, and a large body (Barag 1983:38; fig. 9:5–6). They are dated to the Umayyad period and are compared with examples from Capernaum (Bagatti 1964:270; fig. 4:6, 5 = second from left).

Samaria: References are made to tall candlestick bottles as *unguentaria*, which were found all over the Roman Empire from the 1st century AD to the 4th–5th centuries AD (Crowfoot 1957b:409; fig. 94:1–3).

Sardis: The Sardis examples have already been noted, but it should be mentioned that these also had folded-in rims, and one bottle rests in a tubular bronze casting (von Saldern 1980:78–79; pls. 15, 27).

H. Lamps

Criteria: Lamps from the Umayyad and earlier Byzantine period were common in two particular forms. These forms are known as “tumbler” and “stemmed.” Lamps are generally found in churches dating to these periods, but may also appear in private houses and public buildings. The stemmed lamp form precedes the tumbler, coming into use in the 4th or 5th century, but by the Early Byzantine period glass lamps had reached “universal popularity” (von Saldern 1980:49). At Tall Jawa both of these forms were present in Building 600.

H-1. Stemmed Lamps

H-1a. Hollow Stemmed Lamps

The hollow stemmed lamp is a very long-lived type and remains in use in churches and shrines to this day. Stemmed, footless lamps sat in a polycandelon; a metal disc, usually of bronze, with circular holes cut out of the disc so that the bowl of the lamp rests on top and the stem of the lamp hangs underneath. Polycandela with holes for two, three, four, six, eight, ten, or even sixteen lamps are known (Meyer 1988:203). Lamm presents a two-lamp polycandelon of unknown provenience that has a central pedestal to allow it to sit on a table or other surface (Lamm 1928: pl. 5). Most other published polycandela appear to have been suspended by chains, and at Jarash both polycandela and their chains have been recovered (Crowfoot and Harden 1931:207; Gawlikowski and Musa 1986: fig. 10). Two six-lamp polycandela, their chains and hooks were recovered at Sardis (Waldbaum 1983:589, 590).

The bowls of the stemmed lamps at Tall Jawa were not preserved intact, so their shape, total height, and diameter are unknown. Complete examples at other sites reveal great variations in the forms of bowls and stems, demonstrated by Crowfoot and Harden (1931: pl. 29). In addition, handleless bowl-shaped lamps with a hollow stem were found in the Petra Church (Fiema *et al.* 2001: figs. 662, 663).

Catalogue

G178 – G93/7. (Fig. 14.13:1; D32:42/66). Hollow stem; last 0.5 cm of stem is solid glass with air bubbles, and shows evidence of removal from the pontil; H 6.3, D 1.3. Colour 5G 5/2, grayish green.

G318 – G93/23. (Fig. 14.13:2; D23:2/15). Base of lamp body forming into a hollow stem, which is broken; glass shows striations where it has been pulled into the stem; eggshell thin; H 2.3, D of stem approximately 1.4. Colour 5G 8/1, light greenish gray.

Parallels

Jarash: Five examples of hollow stems are reported in Meyer's publication (1988: fig. 11:H–L), dating to the Late Byzantine and Umayyad periods. One example, fig. 10:H, is fairly complete and shows the stem widening into a bowl with gently curved sides and a slightly thickened rim. The glass is described as thin, but overall measurements are not given. A complete example (Gawlikowski and Musa 1986: fig. 9:2) shows a squat bowl shape with straight walls and a hollow stem whose end is flat rather than rounded. This lamp appears to be approximately 13.5 cm in total height and the diameter of the bowl is 9.0 cm.

Uyun Musa: A hollow stemmed lamp with its wick holder provides a good example of this lamp type from the Mount Nebo area (Alliata 1990: fig. 8:109).

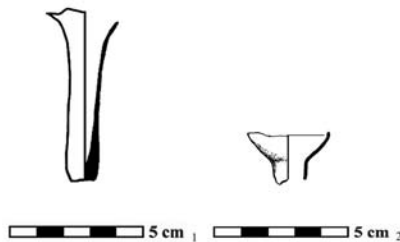


Figure 14.13. Hollow stemmed lamps. 1) G178; 2) G318.

Dh̄bān: Several examples of hollow stems are illustrated, some of which appear slightly lumpy and perhaps poorly or quickly made (Tushingham 1972: fig.13:20, 27, 42–44).

Umm al-Rasas: Included in the material from the presbytery is the stem and base of a hollow-stemmed lamp; other stems were recovered in various loci; under a beaten earth pavement (Alliata 1991: figs. 26:30; 19:28, at right), in a trench in the centre of the Church of the Aedicule (Alliata 1991: fig. 6:15), in the atrium of the Church of St. Stephen, and in Room G (Alliata 1987: figs. 7:47–50; 19:5). A complete lamp with its hollow stem was found in Room F (Alliata 1991: fig. 18:26).²⁰

Petra: A small number of hollow stem lamp bases associated with handled tumbler lamps are reported from the Church (O’Hea 2001: fig. 6:4).

Kh̄irbet Shema’: Several styles of hollow lamp stem are present in the glass assemblage (Meyers *et al.* 1976: pl. 8.7:29–32).²¹

Nazareth: Three examples of hollow lamp stems are present in the Nazareth corpus, which are green, yellow, and bluish. There is one stem (item 36) which is described as beaded, but does not appear to be similar to the beaded stems from Tall Jawa nor to comparable material. The illustration of the Nazareth stem exhibits a fairly smooth profile, and appears broken and mended (Bagatti 1969:313, fig. 237:33–36).

Jerusalem: Hadad (2003:193–195; photos II.35, 37; pl. II.5:6–15) classified 116 hollow stemmed lamps from the “House of the Menorot” as Type 2 and compares them to lamps from Beth-Shean, Samaria, Nazareth, Shavei Zion, Gadara, and Pella. The presence of 86 bronze brackets found with the lamps indicates that this type of support was used with the stemmed lamps. Hadad notes that this type of lamp appears “to have gone out of use at the end of the Umayyad period”, based on the evidence from Beth-Shean.

Nessana: Examples from Nessana date between the fifth and seventh centuries (Harden 1962:84–85).

²⁰ An example of a tumbler/bowl-shaped lamp with a hollow stem recovered from Umm ar-Rasas with its wick holder was supported by an eye-hole bracket (Alliata 1991: photo 6).

²¹ The difficulty in distinguishing hollow lamp stems from glass spindle bottles was noted in the catalogue of glass vessels from Meiron (Meyers *et al.* 1981: pl. 9.13:20).

Beirut: Three types of tubular-footed lamps are included in the corpus from the workshop, solid stems, hollow stems and beaded stems. Hollow stems are represented with slight variation in shape, cylindrical or conical. Those closest in shape to the Tall Jawa stem are the conical stems (Foy 2000: figs. 4:12; 6:19–20; 8:5, 13, 21, 24). Examples of hollow stems were also recovered in the souks area, and are assigned to Group 19, dated to the late 6th century (Jennings 2006: fig. 11.26:1–3).

Busrā: Of note is the presence of a hollow lamp stem from the Umayyad house courtyard (Wilson and Saʿd 1984: fig. 573).

Sardis: Two hollow stems are illustrated and date to the fifth and sixth centuries (von Saldern 1980:51, fig. 23–274, 280).

H-1b. Beaded Stemmed Lamps

Beaded stemmed lamps have bowl-shaped bodies from which a solid beaded stem descends. These lamps are designed to fit into a polycandelon, and are not otherwise footed. In one case, at Ḥama, a hollow beaded stem is illustrated but it seems uncertain if this stem does in fact belong to a lamp, although it is dated not later than the 10th century (Riis and Poulsen 1957: 50–51). Another variant is the example at Jarash where the stem hangs from a bowl with an omphalos base (Meyer 1988:213, fig. 13:D).

Meyer postulates that hollow stemmed lamps came into use earlier than beaded stemmed lamps and also notes that while examples are abundant at Jarash, they tend to be uncommon at comparable sites (1988:213). There were no beaded stemmed lamps at Sardis, suggesting that they might have come into use after its abandonment, *ca.* 616 AD, or have been restricted to certain regions. Von Saldern does illustrate vessels that he refers to as “beaker-shaped lamps,” all of which possess short knob bases (1980:52–53, pl. 23:289, 290, 297, 298).²² This type of lamp may be a precursor to the beaded stemmed lamps. At Tall Jawa there are more fragments of beaded stemmed lamps than hollow ones, but the corpus is smaller than sites with parallel material. Foy documents the percentage of occurrence of the solid stems and the hollow stems (2000:248–250), and assigns a slightly earlier date to the hollow stems (5th–6th centuries), whereas the solid and beaded stems appear later, in the 7th and 8th centuries.

²² One knob base was found at Tall Jawa. It is semi-hollow, and 2.0 cm in diameter (G228 – G94/3, Fig. 14.14:5).

Catalogue

- G30 – G92/12-a. (Fig. 14.14:1; D32:32/48). Stem fragment; the base of the lamp bowl flares from a solid stem; air bubbles show that the glass had been twisted in the same fashion as better preserved beaded stems. Together with G83 (G92/62; D32:29/45), this stem has only a single preserved bead, although breakage on both ends of G83 suggest there were originally multiple beads (as shown together in Figure 14.14:2); H 3.0, D of stem 1.5. Colour is a bright blue-green, but an appropriate Munsell colour code could not be obtained.
- G177 – G93/15-c. (Fig. 14.14:2; D32:44/69) Stem with four beads; evidence of breakage on the ‘bottom’ bead suggests that the stem was longer; the two bottom beads are quite round and globular, while the top two beads are gently twisted; glass is tightly twisted where the base of the body meets the beginning of the stem; H 8.1, D of bottom bead 1.6. Colour 5G 6/2, pale green.
- G182 – G93/20. (Fig. 14.14:3; D1:0.5/1). One bead showing the striations of twisting appears to be the first in a series; one end has the beginning of a second bead, on the other end is the beginning of the lamp body; the breakage is jagged and the stem is not as fine as G177; H 2.5, D 1.5. Colour 5GY 5/1, greenish gray.
- G327 – G95/23-a. (Fig. 14.14:4; D23:40/71). Fragment of bead; on the interior, the swirling of the glass is visible; H 0.8, D 1.5. Colour 5G 4/2, greenish gray.

Parallels

Jarash: Beaded stemmed lamps were fairly common at Jarash. Many were found in the Bishop Isaiah Church during Meyer’s excavations, and in the Fountain Court and dump north of St. Theodore’s during earlier excavations (Baur 1938:519–521). Approximately 175 stems and even more lamp fragments were reported by Baur, and in Meyer’s publication one fragment was listed with Late Byzantine/Early

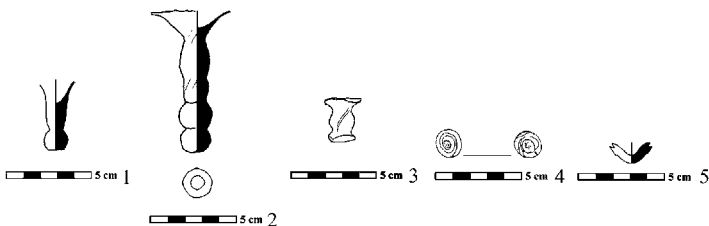


Figure 14.14. Stemmed Lamps. 1) G30; 2) G177; 3) G182; 4) G327; 5) G228.

Umayyad material, and four examples are illustrated from Umayyad levels (Meyer 1988:212–213; fig. 13:A–D). Eleven additional beaded lamp stems are from the Church of Bishop Marianos (Gawlikowski and Musa 1986: pl. VII:B).

Ḥisbân: Lamps with long, solid, beaded stems are described but not illustrated in the report on Ḥisbân (Goldstein 1976:130).

Dhībân: Two beaded stem fragments from Dhībân belonged to lamps likely used in the North Church (Tushingham 1972: fig. 13–21, 45).

Mount Nebo: At least ten beaded stems were recovered from Mount Nebo (Saller 1941:317; pl. 140).

Umm al-Rasas: A beaded stem, possibly belonging to a chalice, comes from a lower fill in the south sacristy (Alliata 1991:20).

Kursi: One nearly complete lamp with beaded stem is illustrated in the catalogue of glass from Kursi. The beads appear clumsily made and are of different shapes and thicknesses. Four beads are preserved and it appears as though there are the beginnings of a fifth (Barag 1983:38, fig. 9:10).

Beth-Shean: A small number of examples are cited from the Byzantine and Umayyad periods at Beth-Shean (Hadad 2006: fig. 19:4:60, 80).

Beth She'arim: A beaded stemmed lamp from Beth She'arim has three preserved beads which are thick and chunky, and a bowl with straight sloping sides and a rounded, convex rim. An unusual feature of this lamp is the “cut-out fold” which runs around the diameter of the lamp marking a carination between the rim and the body of the bowl (Barag 1976:205; fig. 98:15, pl. LXVIII:2).

Beirut: Carefully crafted beaded stems are present in the glass factory assemblage, along with relatively rough or irregularly formed stems (Foy 2000: figs. 4:6–10; 6:12–18; 7:18–22). Other examples were recovered in the souks area (Jennings 2006: fig. 1.26:4, 5).

H-2. Tumbler Lamps

Tumbler lamps appeared later than stemmed lamps; the form dates back to the end of the Byzantine period and continued to be used into the Umayyad period, after which it became less common. Tumbler lamps have been found at numerous, widespread sites, and parallel examples have been found at Alexandria (Rodziewicz 1984:240, pl. 73), Carthage (Tatton-Brown 1984:202, fig. 66), Pelusium, Egypt (Fontaine 1952:79, pl. 4), and Paphos, Cyprus (Fitzwilliam Museum 1978:54–55). Tumbler

lamps could sit on their bases or be suspended by their three handles in a chandelier. In the Byzantine church at ed-Deir (Ma'in), a metal bracket with three hooks was found smashed on the mosaic floor in association with glass shards (Piccirillo and Russan 1976:68; pl. XXIX:1). Bronze lamp chains with hooks were also found at a Byzantine Ecclesiastical Farm at Shelomi (Dauphin 1993:46), and in a church at Ḥorvat Ḥesheq (Aviam 1990: fig. 21). Hanging from the hooks of the ceiling lamp at Ḥorvat Ḥesheq were glass handles belonging to tumbler lamps.

The tumbler lamps from Tall Jawa have flaring walls, blob handles, folded rims, and omphalos bases, although tumbler lamps with footed stems are known from other sites (Baur 1938:524–525). There were no complete or restorable lamp fragments from Tall Jawa that could indicate the depth of the lamps, but four blob handles, twenty-four rim fragments, six rims with attached handle fragments, and three bases were found that likely belonged to tumbler lamps. Only rims with attached handle fragments are listed in this catalogue, as they are the best preserved components of the tumbler lamps. Nonetheless, many folded rims between 8.0 and 13.0 cm in diameter may also belong to lamps.

Catalogue

Rims and Handles

- G6 – G92/3-d. (Fig. 14.15:1; D32:12/29). Hollow-folded rim fragment with part of handle attached; eggshell thin body; width of glass folded 1.1; D unobtainable; length of preserved handle 1.4; T of fold 0.6. Colour 5G 6/2, pale green.
- G26 – G92/10-e. (Fig. 14.15:2; D32:26/42). Hollow-folded rim fragment with part of handle attached; width of glass folded 0.9; D 9.0; length of preserved handle 1.3; T of fold 0.5. Colour 5G 7/2, pale green.
- G44 – G91/54. (Fig. 14.15:3; D12:12/24). Hollow-folded rim fragment with part of handle attached; eggshell thin body; width of glass folded 1.0, D 11.0, length of preserved handle 1.0; T of fold 0.4. Colour 5G 7/2, pale green.
- G172 – G93/14-a. (Fig. 14.15:4; D22:20/33). Hollow-folded rim fragment with complete blob handle; vertical striations run the length of the handle, and embedded in the handle are thick threads of dark glass; eggshell thin body; handle rises above the rim by 1.1; width of glass folded 1.0; D 10.0; length of handle 4.6; W of handle 0.6.

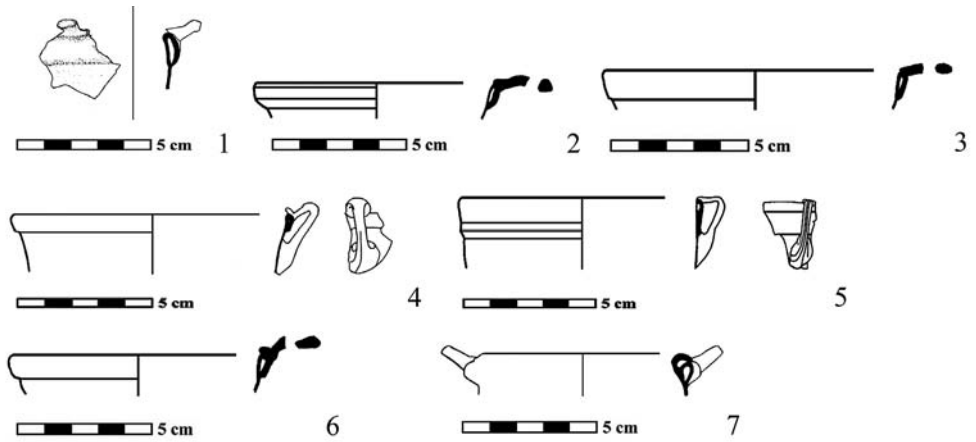


Figure 14.15. Tumbler lamps. 1) G6; 2) G26; 3) G44; 4) G172; 5) G173; 6) G175; 7) G220.

Colour 5G 5/2, grayish green. G172 was found in the same locus as 23 eggshell thin body fragments of the same colour, suggesting the lamp had been smashed *in situ*.

G173 – G93/15-b. (Fig. 14.15:5; D32:44/69). Hollow-folded rim fragment with complete blob handle; the diameter of the rim is slightly smaller than the other tumbler lamps in this catalogue, and the handle is very small and delicate; appears almost as decoration rather than as a functional handle; embedded in the handle are very thin threads of dark glass; handle does not rise above the rim; rim is nearly flat-folded; W of glass folded 1.5; D 8.9; H of handle 3.2; W of handle 0.4. Colour 5G 6/2, pale green.

G175 – G93/16. (Fig. 14.15:6; D32:44/70). Hollow-folded rim fragment with part of handle attached; width of glass folded 0.9; D 10.0; length of preserved handle 1.0. Colour 5G 7/2, pale green.

G220 – G94/18-a. (Fig. 14.15:7; D22:31/43). Very unusual hollow-folded rim with small fragment of handle attached; rim has been looped up and then folded back under itself, creating one closed hollow tube, and then looped again underneath, creating a second closed hollow tube and a seam of glass on the exterior of the rim, against which the handle is pressed; D 6.0, length of preserved handle 1.3. Colour 5BG 7/1, light greenish gray.

Blob Handles

Blob handles, and the reason for their identification as such, were formed by applying a blob of semi-viscous glass to the side of a vessel,

then drawing it upwards, and sometimes slightly outwards, to attach it to the rim. Many of the blob handles at Tall Jawa exhibit pronounced striations, not likely formed by a tool, but resulting from the action of stretching the blob of glass.

Catalogue

- G2 – G92/2. (Fig. 14.16:1; D31:6/13). Blob handle, no rim or body attached; pronounced striations; H 4.1; W of handle 0.5, W of blob 1.5. Colour 5G 4/2, grayish green.
- G4 – G92/3-b. (Fig. 14.16:2; D32:12/29). Blob handle; very smooth; no striations; attached to eggshell thin wall; H 4.3; W of handle 0.4, W of blob 1.1. An accurate Munsell colour code could not be obtained; the glass is green.
- G12 – G92/6-a. (Fig. 14.16:3; D32:20/35). Blob handle; blob clumsily applied to the vessel wall so that it is not round or oval; thick ridges down length of handle; H 5.1; W of handle 0.6; W of blob 2.2. An accurate Munsell colour code could not be obtained; the glass is a yellowy-green.
- G13 – G92/7-a. (Fig. 14.16:4; D32:24/40). Small, delicate blob handle; attached to a very thin wall; broken before the point of reattachment; H 3.9; W of handle 0.4. Colour 10GY 8/1, light greenish gray.
- G216 – G94/15-c. (Fig. 14.16:5; D23:3/32). Fragment of blob handle; very smooth; H 2.8, W of handle where broken 0.5, W of blob 1.8. Colour 5BG 8/1, light greenish gray.
- G221 – G94/18-b. (Fig. 14.16:6; D22:31/43). Blob handle, no rim or body attached; H 4.5, W of handle 0.5, W of blob 2.0. Colour 10GY 6/1, greenish gray.

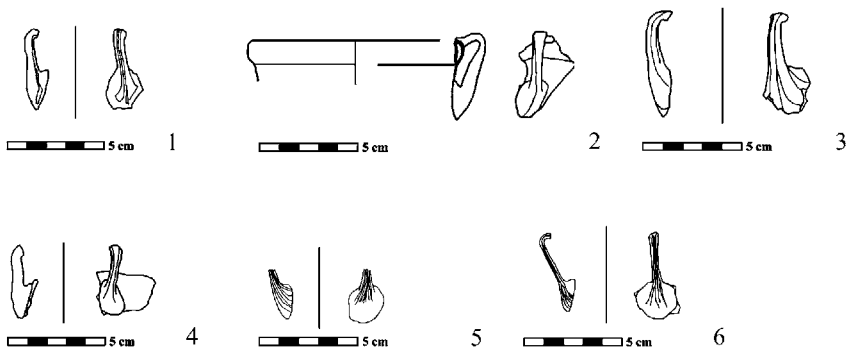


Figure 14.16. Blob handles. 1) G2; 2) G4; 3) G12; 4) G13; 5) G216; 6) G221.

Parallels

Jarash: A great number of tumbler lamp fragments were found during the early excavations of Jarash, and Baur divided the tumbler lamps into Type C and Type D. Type C are tumbler shaped lamps with wide flat bottoms, and Type D lamps have narrow flat bottoms. Type D was more common than Type C, with approximately 230 fragments found. The lamps were generally tall and slender with a narrow unstable base. About a dozen of the Type C lamps were found, and these have a more stable base (Baur 1938:513, 516; fig. 22:380). In Meyer's report, four lamps were illustrated with the Late Byzantine/Early Umayyad material, and one of the three lamps dating to the Umayyad period has an unusual blown diamond design over its entirety.

Mount Nebo: Over a hundred lamp fragments were recovered from Mount Nebo. The tumbler shaped lamps were found with or without wick tubes, and lamps without wick tubes were much more common (Saller 1957:330).

Uyun Musa: Also from the Mount Nebo area is a tumbler lamp with its three handles recovered during the excavations at the monastery of Deacon Thomas (Alliata 1990: fig. 8:108).

Umm al-Rasas: A number of blob handles attached to the rim and wall of a tumbler lamp is a good examples of this style (Alliata 1987: fig. 7:39–41; 1991: fig. 19:28). That these lamps had three handles is well illustrated by the complete rim and upper body of one tumbler and the tumbler restored from its rim to its omphalos base (Alliata 1987: fig. 7:51–52).

El-Lejjun: Tumbler lamps were found in the Byzantine strata of the Vicus and Church (Jones 1987:626–628).

Petra: The same style of tumbler lamps with three handles were in use in the final phase of the Petra Church (O'Hea 2001: fig. 6:8).

Rehovot-in-the-Negev: The tumbler lamp fragments found in the Northern Church at Rehovot-in-the-Negev were divided into two types: bowl shaped lamps with handles, and tumbler shaped lamps with wide, flat bottoms, of which there is only one example. Lamps with omphalos bases and wick tubes were included among the bowl shaped lamps with handles, which are light blue to greenish gray in colour. The rims measure 9.7–13.5 cm in diameter, the handles measure 3.5–4.2 cm in length. The tumbler shaped lamp with wide bottom has a preserved height of 3.8 cm and a base diameter of 5.8 cm (Patrich 1988:134–139; pls. XII, XIV).

Jerusalem: Along with a large number of stemmed lamps, 65 handles from tumbler lamps were also recovered in the “House of the Menorot” (Hadad 2003:191; photo II.33).

Gezer: Tomb 156 at Gezer contained a glass tumbler lamp. The lamp had three handles, two of which had broken off while the lamp was still in use, and one had been replaced by another type of glass. The mouth of the lamp is slightly bent and a wick tube is preserved in the centre (Macalister 1912:362–363, fig. 189).

Nessana: Several tumbler lamp fragments were found at Nessana, and four of Harden’s “bowl-lamps with handles” could be partially reconstructed. These reconstructions ranged from 5.0 to 7.0 cm in height, and 8.0–13.0 cm in rim diameter. One of the reconstructed examples has a central shaft as a wick tube 3.5 cm in height and 1.0 cm in diameter (Harden 1962:84; pl. XX:47).

Busyā: Blob handles were recovered from the courtyard of the Umayyad house (Wilson and Sa’d 1984: fig. 570–571).

Sardis: Von Saldern’s Type 2 lamps, particularly lamp 237, are similar to the examples found at Tall Jawa. Type 2 lamps are described as deep bowls with handles, the rims flared slightly either inward or outward, and the bases may be flat or omphalos. Rim diameters are between 11.0 and 11.5 cm. Over a dozen of the Type 2 lamps were identified, as well as 150 blob handles, some of which likely belonged to lamps (von Saldern 1980:45–46; pl. 23:237).

Wick Tubes

Tumbler lamps are sometimes found with glass wick tubes attached to the interior of their bases. Wick tubes are generally widest at their point of attachment and may taper slightly as they reach nearer to the top of the lamp. Tiny necks from broken bottles and other vessels may also have been recycled as wick tubes, fixed to a base with molten glass (Saller 1957:316). The earliest lamps with wick tubes were found at Gezer and Mount Nebo dating to the 5th and 6th centuries; according to some investigators, these only became common in the 12th century. Wick tubes continue to be used in modern times. There are two wick tubes from Tall Jawa; G1, which was broken after excavation and mended, and G234. Corresponding lamps for these wick tubes cannot be identified with any certainty.

Catalogue

G1 – G91/55. (Fig. 14.17:1; D12:5/13). Wick tube composed of clear, pale blue glass, tapering dramatically from one end to the other; the end with the greatest diameter has attached fragments of very thin glass; D at widest end 3.0 and at narrowest end 0.6; H 4.6. Colour 5BG 8/1, light greenish gray.

G234 – G94/47-a. (Fig. 14.17:2; D12:05/35). Wick tube with soot on interior and exterior; metallic patina; one end bulges slightly, likely where it attached to the base of the lamp, otherwise the diameter of the wick tube is consistent throughout its length; D 1.1; H 3.7. Colour 5G 6/1, greenish gray.

Parallels

Jarash: Baur does not mention lamps with wick tubes in his 1938 report, but one tumbler lamp illustrated by Meyer (1988: fig. 11:Q) shows a blob of glass on the interior of the base, which may be the remnants of a wick tube.

Ḥisbân: Goldstein dates a “beaker-shaped” lamp with a wick tube to sometime after the seventh century (1976:130).

Mount Nebo: Although tumbler lamps without wick tubes were more common than those with a wick tube, about twenty examples of wick tubes were published from Mount Nebo (Saller 1941:316; pl. 140:1).

Petra: Two examples of wick tubes in the glass corpus are illustrated as examples of the base of handled lamps (O’Hea 2001: fig. 6:6, 7).

Bethany: Three examples of bases with wick tubes were found at Bethany, perhaps dating to the first half of the fifth century (Saller 1957:330).

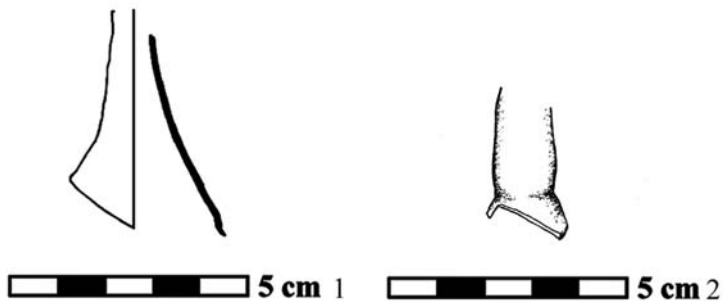


Figure 14.17. Wick tubes. 1) G1; 2) G234.

Jerusalem: A group of 22 wick tubes were located in the “House of the Menorot” along with the handles of tumbler style lamps (Hadad 2003: pl. II.5:4, 5).

Rehovot-in-the-Negev: Omphalos bases with wick tubes were among the examples of bowl-shaped lamps with handles to be recovered from the Northern church at Rehovot-in-the-Negev. The wick tubes measure 3.0–4.0 cm high and 1.1–1.5 cm in diameter. Six examples are illustrated and all appear to have been applied to the interior of the base (Patrich 1988: pl. XII).

Samaria: Examples of tumbler lamps with wick tubes were found in the Church of St. John the Baptist at Samaria (Crowfoot 1957b:418–419; fig. 99: 2, 3).

Gezer: As described above, the tumbler lamp from Tomb 156 at Gezer is shown with a wick tube. The wick tube in this example, however, appears not to have been separately applied to the base of the lamp, but manufactured as a feature integral to the base. Additionally, although it is not clear whether the wick tube was broken, it looks quite short (Macalister 1912: fig. 189). Other examples from Gezer are also reported by Crowfoot and Harden (1931: pl. 28) and dated to the fifth and sixth centuries.

Mezad Tamar: Wick tubes from Mezad Tamar date to the late third to early seventh centuries (Erdmann 1977:112–113; pl. 1).

Nessana: An illustrated example from Nessana, dated between the fifth and seventh centuries, shows a tumbler lamp with an omphalos base, hollow-folded rim and at least two handles. The cross section reveals a wick tube 3.5 cm tall, nearly to the height of the lip of the rim, and 1.0 cm in diameter. The wick tube flares widely where it attaches over the hump of the omphalos base (Harden 1962: pl. XX:47).

ƒ. *Window Panes*

ƒ-1. *Crown Window Panes*

Criteria: Crown window panes were manufactured by blowing a globe which was then attached to a pontil rod, cut, and spun until it opened into a circular disc. This method of manufacture caused the pane of molten glass to be very thick in the centre and thin at the edges. In some cases, before the glass was spun, the cut edge was folded, likely to strengthen the rim of the pane in its final form. There is one example in the Tall Jawa corpus where the rim has been flat-folded, that is,

the rim was pressed flat against the pane, and there are two examples where the rim has been loop-folded to create a hollow, circular tube around the edge of the pane.

Crown window panes were manufactured in a variety of spectacular colours: violet, yellow, red, green, amber, blue, and even black examples have all been published. Particularly colourful were the panes from Mount Nebo. In contrast, the panes at Tall Jawa are either pale green or greenish gray.

Two sites are said to have the earliest examples of crown window panes: Samaria and Jarash. Manufacture of crown window panes is generally thought to have begun in the fourth century since the examples from both sites are dated to that period (Baur 1938:514; Crowfoot 1957b:420; Meyer 1989:214). However, Meyer (1989:213) proposes that crown window panes should be assigned a sixth century date of manufacture, by asserting that there is not enough compelling evidence to support an earlier dating. Site reports from Sardis, Karanis, Carthage, and Shavei Zion, in which crown glass has been published, present no examples dating to the fourth century (von Saldern 1980:91–92; Harden 1936:302–303; Tatton-Brown 1984:208, 210; Barag 1967:69–70). Crown window panes were certainly widespread by the ninth century, and evidence of their use is well established in both private and public buildings across the Near East (Meyer 1989:219).

Parallel examples of crown window panes from the Late Antique period are so numerous that they will not be given at the end of the following catalogue entries.²³ The near ubiquity of this type of glass is a result of a long tradition of manufacture. From the Late Byzantine and Umayyad periods, there are abundant parallels from Mount Nebo (Saller 1941:64–66), Samarra (Lamm 1928:127–128), and Jarash (Meyer 1988: fig. 10:O–U).

Catalogue

G8 – G92/4. (Fig. 14.18:1; D32:17/32). Crown window pane rim; flat-folded; glass is heavily pitted and covered by an opaque, whitish patina; D 29.0. A suitable Munsell colour code could not be obtained.

²³ At Petra, a rim sherd of a crown window pane is accompanied by large fragments of flat panes (O’Hea 2001: fig. 6:3, 1–2).

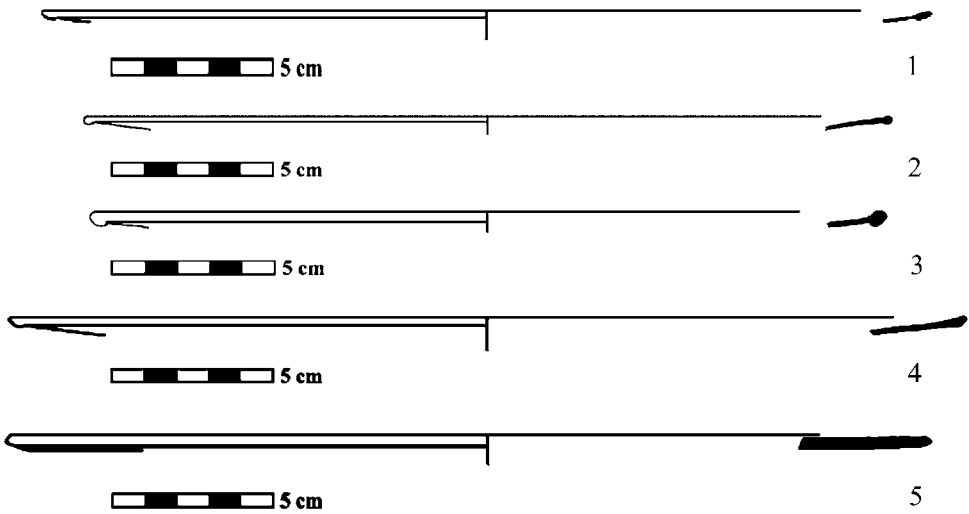


Figure 14.18. Window panes. 1) G8; 2) G162; 3) G170; 4) G181; 5) G223.

G162 – G93/7-c. (Fig. 14.18:2; D32:42/66). Crown windowpane rim; slightly thickened; elongated air bubbles reveal method of manufacture; iridescent patina; D 28.0, T of rim 0.3. Colour 5G 7/2, pale green.

G166 – G93/8. (C43:1/1). Crown windowpane rim; loop-folded; very small fragment and there is a thick patination on the glass; D unobtainable, T of rim 0.5. Colour 5G 5/2, grayish green.

G169 – G93/11-a. (D32.40.61). Crown windowpane rim; slightly thickened; small fragment; D unobtainable, T of rim 0.2. Colour 5G 7/1, light greenish gray.

G170 – G93/12-a. (Fig. 14.18:3; D22:19/25). Crown windowpane rim; loop-folded; very clear fragment, no patina; elongated air bubbles visible; D 27.0, T of rim 0.5. Colour 5GY 7/1, light greenish gray.

G181 – G93/19-b. (Fig. 14.18:4; D32:11/21). Crown windowpane rim; rim has a slightly triangular profile; D 30.0, T of rim 0.3. Colour 5G 7/1, light greenish gray.

G223 – G94/23-a. (Fig. 14.18:5; D33:17/26). Crown windowpane rim; slightly thickened; D 29.0; T of rim 0.3. Colour 10G 8/1, light greenish gray.

G225 – G94/23-b. (D33:17/26). Crown windowpane rim; flat-folded; flaky patina; many elongated air bubbles; width of glass folded 0.9, D 28.0, T of rim 0.5. Colour 10G 8/1, light greenish gray.

G239 – G94/60-a. (D33:9/31). Crown windowpane rim; rim has been “in-rolled” to create a ridge; dirty, flaky patina; D 34.0, T of rim 0.2. Colour 5G 7/2, pale green.

G244 – G94/67-a. (D33:26/43). Crown windowpane rim; slightly thickened; dirty; D 28.0, T of rim 0.2. Colour 10GY 8/1, light greenish gray.

K. Miscellaneous

Rims

Thickened Flaring Rims

A series of sixteen rim shards recovered in the 1995 season all share a similar profile, akin to the ‘Cylindrical Goblets with Everted Rims’, but flaring quite sharply. They range in diameter from 6.0 to 14.0 cm, and in many cases are slightly incurved. Clamer (1997: pl. 24:9–11) published a series of Byzantine bowl rims from ‘Aïn az-Zâra that provide very good parallels in form and diameter; however, the body shape belonging to the Tall Jawa rims is unknown. In general the rims are simple and unexceptional and may be from small bowls, bottles, or goblets.

Catalogue

G250 – G95/1. (Fig. 14.19:1; D2:19/27). Slightly thickened and incurved rim; thin walled. D 12.0

G252 – G95/3-a. (Fig. 14.19:2; A83:0.5/69). Simple rim; clear, bright iridescence on lip and rim. D 10.0.

G254 – G95/4. (Fig. 14.19:3; D12:23/3). Rim; flares outward yet is incurved at the lip creating a very subtle “S” profile; thin glass. D 14.0.

Incurved Rim

One rim in the Tall Jawa corpus is sharply incurved and has a triangular profile. The walls of the vessel are rounded, suggesting a bowl, but the diameter of the mouth is small and the vessel should be considered a closed form.

Catalogue

G156 – G93/5-c. (Fig. 14.19:4; D32:Wbalk/65). Incurved rim; D 8.0, H 3.2. Colour 5G 7/2, pale green.

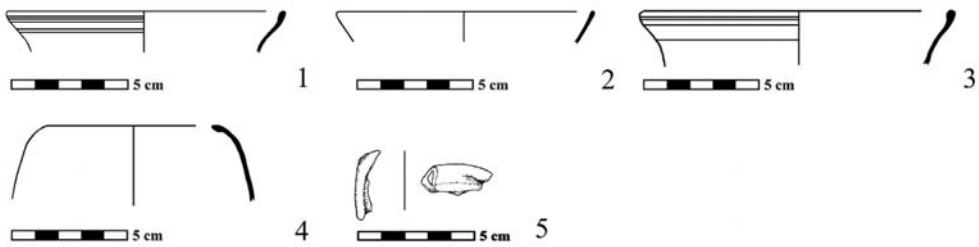


Figure 14.19. Miscellaneous rims. 1) G250; 2) G252; 3) G254; 4) G156; 5) 215.

Possible Trefoil Rim

One unusual rim in the Tall Jawa corpus is hollow-folded and twisted. This may be a manufacturing mistake, or the rim may belong to a ewer or juglet.

Catalogue

G215 – G94/15-b. (Fig. 14.19:5; D23:3/32). Hollow-folded rim twisted inwardly, away from the direction of the fold, as if pinched; diameter difficult to determine because of the twist, perhaps 4.0–5.0 cm. Colour 5BG 7/1, light greenish gray.

Parallels

Jarash: One large bottle with short narrow neck, trefoil mouth, and solid rim was illustrated in Baur’s 1938 report (1938:522, 540; fig. 18:82). The bottle is light green, and the diameter of the lip is 4.8 cm. Baur speculates the bottle may be Syrian. Meyer also illustrated a ewer from Jarash (1988:203, fig. 11:A). It is not certain if either Baur’s or Meyer’s vessel had a handle.

Mezad Tamar: One trefoil mouth fragment from Mezad Tamar is decorated with trailed threads (Erdmann 1977:108, 142, pl. 8).

Yôgne‘am: An Early Islamic juglet rim is slightly misshapen and only lightly pinched. It is described as a “beak-shaped mouth” and appears thickened but not folded (Lester 1996:205, fig. XVII.4:5).

Karanis: Two pale green trefoil mouths are illustrated with the Karanis corpus (Harden 1936:243–244, pl. 19).

Possible Juglet

Three diagnostic shards found in the same locus may have been part of a juglet. The handle, neck, and rim fragments share an unusual

thick, greenish patina, and all are very smooth. In areas where the true colour of the glass is visible, it is also the same. The juglet cannot be reconstructed, but may have looked similar in style to a juglet from Beth She'arim, which has a slender body and neck that flares into a simple rim. The handle of the Beth She'arim juglet attaches just below the neck and stretches up to the rim.

Catalogue

G277 – G95/20-b. (Fig. 14.20:1; D31:24/54). Neck fragment flaring at both ends; H 3.5, D 2.0.

G326 – G95/20-c. (Fig. 14.20:2; D31:24/54). Blob handle; very slender and elegant; two ridges run the length of the handle on one side; H 5.1, W of handle 0.6, W of blob 0.5.

G280 – G95/21-c. (Fig. 14.20:3; D31:24/57). Rim fragment; flaring and flat-folded; the seam of the fold is on the interior of the rim; a small blob of glass is preserved on the rim and may be where the handle was attached; D 8.0. Colour 10B 7/1, light bluish gray.

Parallels

Buṣṣrā: One blob handle with rim and body fragments is illustrated and appears to belong to a juglet with a flaring, thickened rim and wide neck (Wilson and Sa'd 1984: fig. 570).

Ledges

Three small shards exhibit an unusual feature which is here described as a “ledge,” although it is not certain whether this is an accurate

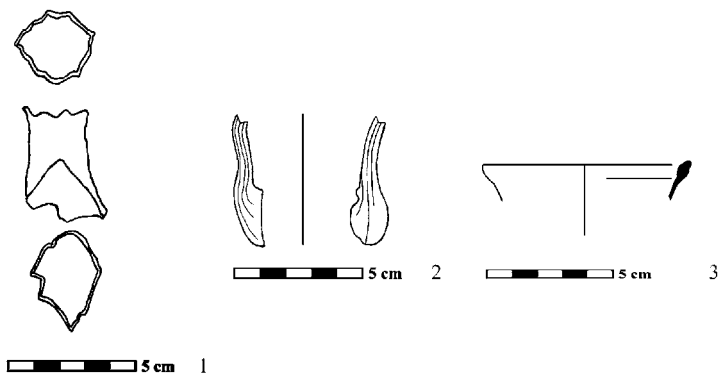


Figure 14.20. Juglet fragments. 1) G277; 2) G326; 3) G280.

identification. The feature is a hollow-folded loop applied to the inner curvature of what is likely a neck or body of a small rounded vessel. The feature may have served to support a lid. Although the shards were not recovered from the same locus, they are identical, and likely belong to one object. Other vessels or objects with “ledges,” or a similar feature, have not been found as parallels for this catalogue. Two fragments in the Corinth glass corpus are identified as lids of vessels, although such a designation appears unlikely given the shape of the Tall Jawa fragments (Davidson 1952:90; pl. 60:814, 815).

Catalogue

G68 – G91/42. (Fig. 14.21:1; M2:13/23). Hollow tube on fragment of eggshell thin body; does not appear separately attached; D 6.0, L 3.1. Colour 5BG 8/1, light greenish gray.

G71. G91/44-b. (M2:13/25). Eggshell thin body extends from the hollow-folded tube; D 6.0, L 3.0. Colour 5BG 8/1, light greenish gray.

G74 – G91/48-b. (M2:17/35) Hollow tube and fragment of eggshell thin body; D 6.0, L 1.4. Colour 5BG 8/1, light greenish gray.

Handles

Ruffled Handle

There is a unique handle in the Tall Jawa corpus that is stylistically different from the blob handles described above. Nothing of the vessel to which it was applied is preserved, although the ‘back’ of the handle and attached fragment of vessel wall is fairly straight.

Catalogue

G65 – G91/33. (Fig. 14.22:1; D12:6/1) Handle; created by applying semi-viscous glass to the vessel wall in a wave-like manner, similar in fashion to the ruffles seen on bottle necks. The glass was then looped and a long trail of glass was then allowed to cover some of the ruffle. A portion of the loop has been mended. Handle is covered

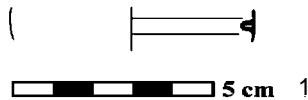


Figure 14.21. Ledges. 1) G68.

with a thick, coppery-white, iridescent patina. H 5.1. Colour 10GY 8/1, light greenish gray.

Parallels

Dhībān: One handle is illustrated that appears very similar. As with the Tall Jawa handle, it is unclear to what type of vessel it was attached, but the curve of the handle suggests it was applied to a shoulder (Tushingam 1972: fig. 13:86).

Ring Handles

One dark, metallic-looking handle has a tightly curved, ring shape, although it is very different from the type of ring handles preserved on two-handled bottles. The handle may have belonged to a bottle, but its small size makes this difficult to determine.

Catalogue

G88 – G92/67-d. (Fig. 14.22:2; D31:18/35). Handle; opaque, dark and metallic with flecks of red, green, and blue; flat with heavy ridges on one side; glass has been folded and pressed against the inner curvature of the handle. D of inner curvature 1.1; D of outer curvature 3.0; H 2.3. An accurate Munsell colour code could not be obtained.

A second ring-type handle is also very unique. It is tubular and very delicate, and has a beautiful blue-green patina. This handle was found in association with some eggshell thin body fragments, one of which is decorated with thin trailed threads.

G230 – G94/38-a. (Fig. 14.22:3; D14:6/13). Handle; small and graceful; both ends broken; H 1.9. Colour 5G 6/2, pale green.

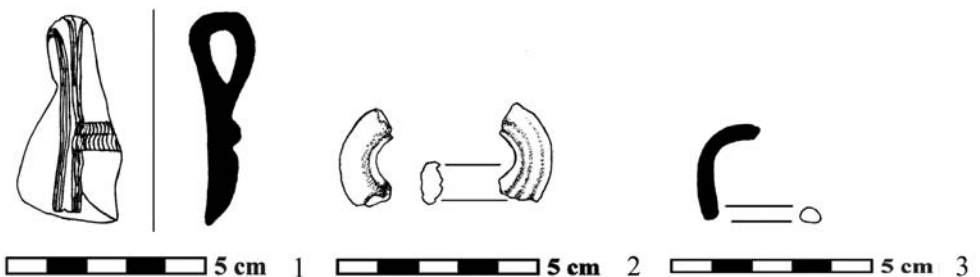


Figure 14.22. Miscellaneous handles. 1) G65; 2) G88; 3) G230.

GENERAL ASSESSMENT

The Umayyad corpus from Tall Jawa continues the long tradition of Roman and Byzantine forms, specifically wine glasses with looped and flat feet, crown window panes, and bottles with in-rolled rims. Some pieces, however, are unique at Tall Jawa and unparalleled among sites with comparable material, for example the bottles with the distinctive loop-folded rims, the “double-folded” rim which may belong to a tumbler lamp, and the interior “ledges.”

The closest parallel material comes from Jarash, although Jarash has a wider range of common vessel types. The Tall Jawa corpus, however, may be considered extensive for one building, particularly in comparison to urban centres such as Jarash. In her 1988 report, Meyer illustrates 263 pieces from Roman to Mamluk periods. She notes, however, that the bulk of the Jarash corpus dates to the Byzantine and Umayyad periods, with a large number of finds coming from the North Theatre. Other glass fragments from Jarash were recovered from the Church of Bishop Isaiah, and from soundings completed by ACOR for the Jarash International Project. Thus, it may be said that while the Jarash corpus covers an extensive period and multiple buildings, the Tall Jawa corpus, with 254 diagnostic shards recovered from one building and one time period, appears quite large and comprehensive in relative terms.

Other extensive glass corpora were recovered from Sardis and Karanis (Egypt), two sites which are not contemporaneous with Tall Jawa. In general, the Tall Jawa corpus is larger than the corpora of sites with parallel material,²⁴ however, in some cases, where a vessel type may be common at such sites, it is scarce at Tall Jawa, or vice versa. This is particularly true for vessels that are considered ‘typically’ Byzantine, such as long-necked bottles, or wine glasses with flat feet. At Tall Jawa, there is a dwindling of these particular Byzantine forms, complemented by the introduction of vessels that generally appear in Umayyad levels at other sites, such as the beaded stemmed lamps and tumbler lamps. The value of the Tall Jawa corpus lies in its relatively secure dating, and the fact that it is one of the few published Umayyad glass corpora. At the same time, forms that appear “for the first time” at Jarash

²⁴ It should be noted, however, that other well known sites in Jordan, such as Pella, Madaba, and Umm al-Rasas, do not have yet fully published glass corpora, and thus firm comparisons may be premature.

in Umayyad levels, including the two-handled shallow bowl and the four-handled jar (Meyer 1988:211), are not securely represented in the Tall Jawa corpus. The large bowl with hollow folded rim (G17) may have had handles, and some of the folded rims with attached handle fragments (G6) may have belonged to a similar, four-handled jar. In this case, however, one would expect to find at least some handles that 'match' and this did not occur at Tall Jawa. Additionally, there is no evidence of marvered decoration on the Tall Jawa glass, as there is on Umayyad glass from Jarash.

The Tall Jawa glass corpus is largely comprised of bottles, lamps, window panes, and wine glasses with looped feet. The fabric is fairly consistent—thin and light, greenish gray or pale green in colour. In comparison to other sites, this appears to be a fairly specialized repertoire; however, the number of simple or folded rims not described in this catalogue may alter this suggestion. It remains true that the most common types of glass vessels used at Tall Jawa were not large or communal serving vessels, for example, shallow platters, but were smaller vessels more likely for individual use.

PART FOUR
CONCLUSIONS

CHAPTER FIFTEEN

THE SETTLEMENT OF TALL JAWA IN THE BALQĀ' REGION: CHRONOLOGICAL IMPLICATIONS

P. M. Michèle Daviau

INTRODUCTION

Following the final Iron Age II occupation of Tall Jawa (Stratum VII), the site was abandoned and there followed a long gap in occupation. It was only in the late Byzantine–early Islamic period that this location was again chosen as a settlement site.¹ In a 5.0 km radius from Tall al-ʿUmayri, the Regional Survey by the Madaba Plains Project demonstrated that the heaviest settlement concentration in the Balqā' region occurred during late Roman-Byzantine times (Boling 1989: fig. 8.117). This same concentration was already documented by the more extensive (10.0 km radius) Ḥisban survey in the area which extended from al-Yadudah and Tall al-ʿUmayri East (Site 150) in the east, to Tall Iktanu in the west (Ibach 1987:183). Here 85% or 126 archaeological sites yielded evidence of occupation during the Byzantine period.

Evidence for occupation during the Umayyad period shows a decrease in the survey data from central Jordan, although recent excavations have added to the number of known sites where occupation continued.² At the site of Ḥisban, the town continued to grow during the Umayyad period, although there is no evidence of architecture dating to the Abbasid period. So too, evidence for food production declined from a High level in the Byzantine and Umayyad periods to a Medium to Low level in the Abbasid period (Lbianca 1984:270, 279–280). In the Ḥisban survey, Umayyad pottery was identified at 33 sites (22%), with the heaviest concentration of those sites (*ca.* 82%) on the Plateau;

¹ A similar pattern of abandonment and resettlement is seen in the archaeological record of Tel Rehov in the Beth Shan valley (Mazar 1999:42).

² For a recent discussion of the continuation of settlement in certain areas of Transjordan, see Bowersock (2006) and Walmsley (2007).

early Islamic settlement appears to decline even further in the Abbasid period to only 7 sites (8%; Ibach 1987:189).³

In the immediate vicinity of Tall Jawa, the largest settlement with remains dating to the Roman and Byzantine periods is al-Yadudah. Evidence for this occupation consists of a series of rock-cut tombs and the remains of mosaic floors, now covered by the buildings of Khan Zaman (a complex of restaurants and shops). Of importance for this study is the presence of early Islamic pottery, possibly from cisterns located outside the current qaṣr (Herr 2003:89; figs. 1–4). In this, al-Yadudah differs from the Byzantine period site of Tall al-ʿUmayri East, which went out of existence prior to the Umayyad period. Both at Tall al-ʿUmayri East (Franken and Abujaber 1989: fig. C.16b) and on a hill (MPP Site 11) to the south of Tall al-ʿUmayri (west; Boling 1989: fig. 8.22), there are several cemetery sites with Roman style family tombs consisting of a central chamber and radiating loculi.⁴ At these sites, the latest pottery dates to the Byzantine period; there is no evidence of early Islamic reuse of any of these tombs.

In 1980, additional survey work, starting in the eastern desert and moving westward, was undertaken by King, Lenzen and Rollefson (1983) in an attempt to relate the Islamic desert castles to settlement sites on the central plateau. This was prior to our work at Tall Jawa, and it is now clear that this settlement would add to the number of sites with early Islamic occupation in the area west of a line from ʿAmman to al-Muwaqqar.

LATE BYZANTINE REMAINS AT TALL JAWA

While the final occupation and use of Building 600 appears to date to the early Islamic period, more specifically to the 8th century AD, there is evidence for both earlier and later use of the area. Random finds from both inside and outside the building are strong evidence for activity during the late Byzantine period. At present, this evidence is

³ Sites include settlements, caves, farmsteads, bedrock features, etc. For the Abbasid period, the pottery readings are for one site with “few” sherds, three sites with pottery “attested”, one site with “one sherd” and two sites with “possible” Abbasid pottery (Ibach 1987: Table 3.27).

⁴ A comparable tomb (T-1) excavated by the Tall Jawa team (1994, 1995) on the east side of Jawa village (Daviau, ed., in preparation) dates to the early Roman period.

most apparent to the north of Building 600 and consists of architectural remains and a heavy concentration of tesserae at ground level in Squares D8–D28, a distribution pattern which suggests the location of a major building (Chapter 1, above). Along with these tesserae and the stone-carved architectural elements bearing crosses that were found in secondary use in Building 600, the plan of the house fits well into the building traditions of the Byzantine period. A number of features seen in Byzantine houses can be compared to Building 600 even though its own plan was conditioned and affected by the decision of the builders to reuse the Iron Age outer walls on three sides and the staircase.

Multi-level houses dating to the Roman and Byzantine periods were well known in Jerusalem, due to its topography. The houses surrounding the Temple Mount on the south and west are examples of courtyard buildings “two stories high, with a half-story basement” (Hirschfeld 1995:62; fig. 38), a plan utilized as well in Building 600, although the lower rooms are limited to the central hall (R607), a corridor (R617), and the reception/triclinium room (R606). Arched rooms with pillars built up against the walls of the room were also typical of the Jerusalem houses, a style seen here most clearly in Rooms 601, R604, and R606. In some cases, the courtyard of a Jerusalem house was partially roofed, creating a passageway on the upper storey that gave access to second floor rooms and led to an interior staircase. In the case of Building 600, we have argued for the existence of such a corridor on the upper level (R611) in front of Room 602+603, and a second(?) balcony (R610) above the central hall. Living rooms were also present on either or both the ground floor and the upper level in multi-level houses. The same is true for the latrine; one example of an upper storey lavatory was identified in Building XII at Mamfisis, where it was located off the landing of the staircase (Negev 1988a: plans 28, 33; photos 143, 144), a location similar to the installation between Rooms 608 and R609 at Tall Jawa.

The painted plaster decoration and mosaic pavements of the Central Hall (R607) and the reception room (R606) are also well known features in Roman-Byzantine period houses and monasteries. Small, relatively simple mosaic carpets with geometric designs appear in middle class houses (Hirschfeld 1995:270; fig. 197), such as the one on the floor of Room 3067 in Jerusalem (Ben-Dov 1982:251; Mazar 2003:209–211; Fig. 4.5b, above).

Along with these common architectural features, there are a considerable number of ceramic vessels and sherds and lamp fragments

that continue the ceramic traditions of the Byzantine period. These ceramic forms fall into two categories; some sherds have parallels in the assemblage of ceramic material (4th–5th centuries) recovered from a wine treading floor (Field M–Feature 2) and storage cave (Field M–Feature 13) excavated to the south of Tall Jawa in 1991 (Daviau, ed., in preparation), while the latest Byzantine material appears to predate more closely the Islamic conquest of the region and have their best and most numerous parallels with the vessels in the assemblages from Mount Nebo and Umm al-Rasas.

Among the earliest materials is a rim sherd (D21/51.2) of Hayes' Form 58 Type B, a coarse African Red Slip Ware bowl.⁵ Also present are examples of late Byzantine forms enumerated by Sauer (1982:330), as well as examples of Phocaeen bowls with parallels at Yoqne'ām (Avisar 1996: fig. XII.2:1–4).⁶ Distinct among the fine ware bowl forms are the simple rim sherds of hemispherical cups/bowls with a single wavy line incised on the exterior (D12/30.18), and among the storage vessels are the gray ware sherds with white painted decoration (including registered sherd D32/36.6) common to baggy jars. In both cases, there is less than a handful of each type represented in the sherd material recovered during five seasons of excavation at Tall Jawa. The case of the large jars in dark grey/black ware with white paint is problematic, since they appear at 'Araq Abu az-Zayt in the Jordan Valley during the Umayyad period (Sauer 1982: fig. 3), and are present at Pella in the Umayyad–Abbasid periods (Walmsley 1995: fig. 7:8–10). Likewise, these jars at Khirbat al-Mafjar are dated by Whitcomb to AD 750–800 (1988:56; fig. 1A). What is not clear is the degree to which such jars may have had a regional distribution pattern which did not include Tall Jawa, in view of the fact that no baggy jars with loop handles attached at both ends to the shoulder were found by our expedition.

TRANSITIONAL POTTERY

Chronology within a given horizon or between one horizon and another is usually established and refined on the basis of the characteristics of

⁵ This sherd is similar to the Hayes' Type 59 bowl from a grave at al-Haditha, dated to the late 4th–early 5th century (Parker 1994:393; fig. 2).

⁶ Only sample sites are mentioned here, as examples of the distribution of certain forms and decorative styles.

the ceramic corpus. Unfortunately, the Tall Jawa corpus is too small to determine quantitatively whether a given form is in decline or is on the increase; too many of the forms are either unique or well known in both the late Byzantine and early Islamic contexts. Each of the jugs in the corpus is unique, although a number of spout sherds indicate a larger assemblage of spouted vessels. The few forms that do appear in more than one example are the vertical-sided bowls, the cooking casseroles, cooking pots, small ribbed jugs, hand-made basins, and medium-size jars.⁷

Vertical-sided bowls or large cups with broad painted strokes are common throughout central Transjordan, appearing at Jarash, 'Amman, Rujm al-Kursi, Mount Nebo, Ḥisbān, al-Muwaqqar, Qaṣṭal, and Umm al-Rasas. At the same time, certain decorative motifs appear to be restricted to certain regions and may reflect a specific potting tradition,⁸ high status or chronological difference. One pertinent example consists of the vessels with elaborate geometric and floral patterns painted with a thin brush that appear at Rujm al-Kursi and are known as palace or Maḥjar ware (see below). These designs are predominantly on bowls with a vertical wall and internally thickened rim ('Amr 1986:146), and are centred in the region from Beth Shean to Qaṣr Ḥallabat in the north and from Khirbat al-Maḥjar to Rujm al Kursi in the south. These high status vessels are not represented at Tall Jawa in spite of its high percentage of painted wares.

The stratigraphic situation, along with certain finds associated with the painted pottery and lamps, indicates that Building 600 could have been built and occupied during a transition period in the 7th–8th centuries AD. These finds consist of items inscribed in Greek such as Naoumas' jug,⁹ a lamp fragment with an incomplete Greek word, a fragment of ostrich egg shell with Greek graffiti (see Chapters 10 and

⁷ For the problems with the traditional method of establishing ceramic parallels for individual forms, see Kehrbeg (2001:601–602). In order to avoid dependence on profile drawings alone for comparison, this author has visited local museum and the collection at Mount Nebo in order to compare ceramic fabrics and painting techniques.

⁸ In his paper at the Second International Congress on the Archaeology of the Ancient Near East (Copenhagen, 2000), Northedge suggested that the sources of fine wares were cut off with the rise of Islam. The result was the development of local fine ware traditions, with painted pottery appearing in the 'Amman to Umm al-Rasas area. De Vincenza (Copenhagen, 2000) noted that there was no painted pottery at Ramla in the early Islamic period.

⁹ Daviau and Pietersma (1994).

11, above), along with a bronze cross.¹⁰ Among the Byzantine-style unpainted wares at Tall Jawa are the upper part of a Gaza amphora (D12.10.1), a spouted decanter (D12.9.1), a small ribbed jar (D22.25.2) in grey ware, ribbed cooking pots (D12.7.4; 23.17.1) and casseroles (D32.13.2; 23.30.6; 33.20.2) with their lids (D22.6.4), and the fine wares mentioned above.¹¹ Handmade basins with everted rims and combed lines in straight and wavy bands are a continuation of a Byzantine vessel form, which is also comparable to those found at al-Muwaqqar, along with examples with pie crust pinched rims, both dated to the 8th century during the Umayyad period (Najjar 1989: Fig. 5:11, 13). Sherds of other unpainted vessels have parallels with the Umayyad period finds from the Church of Bishop Isaiah at Jarash, such as grey ware basin sherds (D23:11.3; D23.12.1; see Clark 1986: pl. XII), as well as a small brownish red jug with white paint on the ridged shoulder (sherds D23/23.8+9; see Clark 1986: pl. XIV:27, FIV.003). This is in contrast to our mended vessels, few of which appear to have parallels in the published Jarash reports.

Items from this same transition period that were reused in Building 600 consist of a lintel with three crosses in relief (L1)¹² and a semi-circular window stone with one cross in relief reused in Wall 6020. Artefacts which clearly reflect Islamic period occupation consists of one Kufic ostrakon (TJ 359), the coin hoard, the Arabic-inscribed lamps (Chapters 11, 10, 13, respectively), and a stone doorframe inscribed in Arabic (J-1). Several of these materials such as the lintel, the decorated window stone, and the ostrich egg shell may originally have come from an earlier building, possibly a church, located nearby.

Candlestick lamps are problematic, since they are dated by various scholars to a wide range of dates. Sauer (1982:352; fig. 4) identified these lamps at Tall Ḥisban as Umayyad, Hirschfeld (1999:153, 155) found them in a sealed assemblage with pottery no later than the

¹⁰ A church at Mukawir has comparable features in that there is an undecorated white mosaic floor in a room flanking the apse on the north along with a bronze sceptre in the form of a cross, complete with a centrally placed gemstone (Piccirillo 1993:246; fig. 416).

¹¹ Comparable bowls with incised wavy lines were reported from the Islamic house (Area XI) outside the North Theatre at Jarash, one of which (2958/24) is identified by Bowsher in his plates as a "Byzantine bowl" (Clark *et al.* 1986: Pl. XVI:2). In her study of the Jerusalem pottery, Magness (1993:193–195) explicitly identifies this bowl type as Fine Byzantine Ware (FBW).

¹² Lintel 1 was not *in situ* but in the collapsed debris (D23:1) that had fallen into Court 607; it measured 0.42 × 1.02 m.

7th century at Khirbet ed-Deir monastery, which was abandoned *ca.* 650 AD, and Magness (1993:251–254) assigns a date range for large candlestick lamps of mid-6th–7th, possibly as late as the early 8th century. While these were not numerous at Tall Jawa, they do make an appearance (Chapter 9).

ABSENCE OF ABBASID INDICATORS

With the exception of certain long-lived lamp forms and plain ware jugs, specific chronological indicators that suggest Abbasid period occupation appear to be absent from the Tall Jawa ceramic repertoire. These include jugs and jars in Mahesh ware identified at Ayla (Whitcomb 1989) and Abu Gosh (de Vaux and Stève 1950: pl. C), and *Kerbschnitt* or cut-ware bowls found at 'Amman (Olávarri-Goicoechea 1985: figs. 17:12, 14; 16:1, 4, 7), Pella (Walmsley 1995: fig. 9:6, 7), Khirbat al-Mafjar (Baramki 1944: fig. 6:20–25), and Yoqne'am (Avisar 1996:122; fig. XIII.74:1–4),¹³ to name only a few sites. Another well-known bowl type is the palace-style painted wares, such as those from Rujm al-Kursi mentioned above, which are also found at Khirbat al-Mafjar (Baramki 1944: fig. 9:2–4, 11, 22), Pella (Walmsley 1995: fig. 6:9), 'Amman (Olávarri-Goicoechea 1985: fig. 15:1, 3–6, 8, 13, 15), as well as Khirbet edh-Dharih (Waliszewski 2001: fig. 7:3, 4). Only a few of these high status bowls were found at Umm al-Rasas (Alliata 1994a: fig. 116, 119), a site which continued into the Abbasid period. Mould-made barbotine jugs and jars found at several early Islamic sites may be even later, in the 9th–10th century; such vessels do appear at Khirbat al-Mafjar (Baramki 1944: figs. 5:15, 16; fig. 14:2, 3) and were assigned by Whitcomb to his Period 3. Most telling is the complete lack at Tall Jawa of glazed wares, such as the bowls found at al-Muwaqqar and 'Amman (Najjar 1989: fig. 8:37; Northedge 1992: fig. 137:1), and Yoqne'am (Avisar 1996: figs. XIII.1–XIII.15).

Another characteristic vessel form, which is not present in Building 600, is the straight-sided bowl with ledge handles and a flat base. Such vessels were made of steatite and imitated in a black ceramic ware and are assigned a date in the 8th–9th century. Stone bowls were present

¹³ Walmsley (1995:668) suggests that these wares imitate the steatite vessels which have the same body shape.

at Mount Nebo-Siyâgha (Alliata 1990b: figs. 41–43) and at Khirbat al-Mafjar (Baramki 1944: fig. 6:24), while examples of gray/black ceramic bowls appear at Yoqne‘am (Avisar 1996: fig. XIII.75:1–3), Nabratein (Magness 1994: fig. 1), and a number of other sites from Caesarea to Aqaba (Magness 1994:200). It should be noted that the red-painted bowls assigned by Magness an 8th–9th century date (1994:203; fig. 4) are those with fine brush designs associated with *kerbschnitt* bowls, and not the broad brush painted bowls from sites with undisputed Umayyad occupation.

The introduction of finger knobs (also known as “turban” knobs) on the handles of jugs and small jars also appears to be a late feature which is not represented at Tall Jawa, but is seen at ‘Amman (Olávarri-Goicoechea 1985: fig. 22:12; 52:9), Khirbat al-Mafjar (Baramki 1944: fig. 16:1–3); Khirbat al-Karak (Delougaz and Haines 1960: pl. 43:5–7, 14–18, 24–27; 29–32), Pella (Walmsley 1995: fig. 9:5),¹⁴ Umm al-Rasas (Alliata 1991: fig. 18:24), and Yoqne‘am (Avisar 1996: figs. XIII.129:1–3; 138:1–3, 5–7).

The continuous use of the churches at Umm al-Rasas through the Umayyad period and into the beginning of the Abbasid period, with a certain amount of later sherd material, is critical for understanding the chronological setting of Tall Jawa. At the same time, it provides evidence for the introduction of certain ceramic styles that began in the Umayyad period and continued into the Abbasid period. This evidence is important in view of the current trend to push the dating of cut-ware and painted palace ware into the late 8th–9th centuries (Whitcomb 1988; Magness 2003). While this re-dating may better represent the continued settlement and use of certain sites, there is still a need to identify the precise characteristics of the material culture of the Umayyad period and not create a gap in the chronology as had been the case previously with the Abbasid period.

HISTORICAL CONSIDERATIONS

Comparison of the finds from Tall Jawa with the results of recent excavation at Qaṣr al-Ḥallabat may offer an explanation for the mix

¹⁴ This appears to be a skeuomorphic feature (see Walmsley’s suggestion that these vessels imitate silver ones).

of Christian and early Islamic elements in the archaeological record of both sites. In the qaṣr and the surrounding area, there is evidence for Ghassanid control during the 6th century and the settlement of their families near the fort. Following the 551 earthquake, the builders reused stones with imperial Latin inscriptions, but made no attempt to restore the text, which is symptomatic of their relatively independent control of the area. In view of their responsibility for the eastern *Limes*, the Christian Ghassanids settled at various sites, including Umm al-Jimal and Umm al-Rasas.¹⁵ Although there is no fort at Tall Jawa, its proximity to al-Yadudah and the heights on which Khan Zaman sits makes it an ideal place for settling Ghassanid families. Rock cut installations to the south of Tall Jawa that date to the Byzantine period are also evidence of the exploitation of agricultural resources in the area (Daviau, ed., in preparation). That Ghassanids were in the region is confirmed at Nitl, southeast of Madaba, where mosaic inscriptions include names known from the onomastics of Banu Ghassan phylarchs and kings (Piccirillo 2001:283; Shahîd 2001). Ghassanid structures, including a qaṣr located near a pair of dams in Wādi al-Qanāṭir, along with a mosque, are evidence of early Islamic period occupation in the region of Umm al-Walid (Genequand 2001:647–652). The culturally mixed assemblage at Tall Jawa may be a clue that Christian Arabs lived at this site and gradually converted to Islam.

Another element which may contribute to our understanding of the settlement at Tall Jawa with its Christian and Muslim features is the presence of a lamp with the inhabited vine design (V1643) inscribed with the name of Aṣṭūrā and [...], usually reading “son of Aṣṭān” (Iṣṭifan or Stephanou), a Christian lamp maker known at Jarash (Gawlikowski 1995:670). The presence of this name and of Jarash lamps at Tall Jawa may also indicate that the inhabited vine style lamps were regionally distinct but contemporary with Jarash lamps made during the period 630–650 (Gawlikowski 1995:672) and not necessarily later in date. That the inhabitants converted at some point to Islam is supported by the presence of Ostrakon TJ 359, incised with a prayer for forgiveness, lamps inscribed with the *Basmala*, or with phrases containing *Allah*, and graffiti incised on the plaster in Room 606. The post-reform

¹⁵ I. Arce, presentation at the Fifth International Congress on the Archaeology of the Ancient Near East, April 5, 2006, Madrid, Spain. For his re-evaluation of the sequence of structures at Qaṣr al-Hallabat, see Arce (2007).

coin hoard containing *fulus* from the mints of Damascus and Ramla provides a *terminus post quem* for the abandonment of the building, but only the pottery gives us a sense of the span of occupation.

Although further excavation of late Byzantine remains on the *tall* are needed to identify the extent of continuous occupation, or reoccupation, in the Late Antique period, the settlement at Tall Jawa clearly spanned a major transition period between cultures (Byzantine, Ghasanid, Islamic) in central Jordan.

PART FIVE

MULTIMEDIA PROGRAMME

CHAPTER SIXTEEN

THE TALL JAWA MULTIMEDIA INFORMATION SYSTEM

David Hemsworth

INTRODUCTION

The documentation for the archaeological record of Tall Jawa is preserved at Wilfrid Laurier University in the form of field notebooks, photographs, plans and section drawings, object, pottery and sample registration books.¹ Like any excavation, the recording in the field produces thousands of locus sheets, daily journal sheets and illustrations. Changes in publishing and in technology have made it possible to publish much of this material on the world-wide web, but the final report in book form can also contain a large, representative sample of this data, a sample which contains precise information related to the written description of the stratigraphy and architecture of the major structures at the site. In this volume, there is a plan of the site showing the superimposed working grid and a detail of the grid in Field D, plans of the building with elevations, room and wall numbers, and relevant locus numbers. In addition, there are photographs of each major room and of certain special features, such as arches, doorways, the staircase and details of the architecture. In order to present this information in a more complete format, a locus list, and a multimedia program² containing colour and black and white photographs and a series of linked databases are included on a DVD. Copies of the plans of each phase of Building 600 are also included in the multimedia program.

¹ The seasonal reports, a set of contact sheets of all black and white photographs, a set of colour slides, and a complete copy of the object registration log are on file in the Department of Antiquities of Jordan in 'Amman.

² The North American versions of the programmes used employ US spelling.

The Locus Summaries

A complete locus summary list is included on the DVD in MS WORD and in PDF formats to accompany the various databases and the detailed discussion of Building 600 in Chapter 3. The standardized descriptions include identification, Munsell Colour Codes, composition and inclusions, ceramic count, pottery pail numbers and pottery readings from the field (the pottery was identified as late Byzantine-early Islamic in style; the Iron Age pottery from Stratum VII occupation will be published elsewhere). For certain loci, the total number of sherds is not available; in these cases, the number of registered sherds and the + sign are given. Stratigraphic position is indicated by *Under, Over, Seals against, Sealed against by, Abuts*, etc. For those loci restricted to a given room, the room number is also included. A bottom elevation is given for most walls, although this represents the lowest excavated depth and not necessarily the base of the wall. For detailed information, see the Field Photos database and the discussion in Chapter 3. These lists can be searched or selected, in whole or in part, copied, printed, and saved for future use.

Plans

The field plans of Building 600 were scanned and numbers were added in Photoshop and saved as TIF files; these images were then converted to .jpg for the DVD. The stratigraphy was relatively straightforward and was restricted to only two or three principal debris layers filled with wall stones. This is seen in certain photos, but few section drawings were worthy of inclusion, with the exception of the section of Wall 6004 showing details of the architecture. Section drawings of the elevations across the *tall* were presented in Volume 1 (Daviau 2003: Fig. 1.3).

Detailed Images

A number of figures from the text and unlinked photographs are included in a separate folder on the DVD (Additional images), showing the details of pottery production techniques or designs on the mould-made lamps. The full size images and profiles are in their respective linked program.

THE MULTIMEDIA SYSTEM

The multimedia system contained on the DVD contains six separate databases (Lamps, Pottery, Objects, Glass, Field Photos and Plaster) from the excavations at Tell Jawa. Each database has a separate program entry which is accessible under the Windows program menu (Figure 16.1a) and each of these programs share a common user interface with only the fields in the databases being different. For example, the Lamp database contains 324 records and each record has 35 fields of information. The fields for each of the other databases can be found in Appendix 1. Thus, this chapter will describe the system using only one program, the Lamp database as the exemplar. Switching between different databases will be seamless as the program interfaces are virtually identical. This version of the program has been written to a DVD to allow us to publish all six databases as well as the associated photographs, drawings, and scans of painted objects and samples.

The record fields in each of the Tall Jawa Early Islamic databases (lamp, pottery, glass, objects, plaster and field photos) represent the categories of information recorded for each drawing, photograph and/or colour scan. While most of this information is not subject to modification since it contains registration and classification data, certain categories in the Field Photos program, such as *Room* and *Feature*, may refer to only one element in a given photo in which other rooms or features are visible. The *Comments* box contains a more complete caption for the image. For the most part, information in the *Stratum* field reflects the final occupation represented by a given locus whereas *Chronology* reflects the style of an object (especially of lamps and pottery). The *Comments* box contains a fuller description or note concerning the elements in a given image. While the lamps, pottery, objects and glass programs include all finds from Building 600 and its surroundings, additional Roman and Byzantine material recovered amidst the Iron Age remains of the site and in the bedrock installations to the south (Field M; Daviau 2003: fig. 1.4) will be published in Volume 5.

Each record is accompanied by a drawn image, except for those instances where an item is badly shattered or too small to be illustrated meaningfully. For certain lamps, painted sherds, fragments of painted plaster, and partially restored pottery vessels, a photograph or colour scan is also provided.

Overview of the System

The information system is designed for researchers, lecturers and students in the classroom and in the field who make use of archaeological field reports. This information system (IS) is suitable for users at the beginner to intermediate level of computer literacy. Many researchers in archaeology work primarily in the PC platform, and at the present time Microsoft Access is one of the leading database programs for small-scale applications. The programs are written in Microsoft Visual Basic 6. Although the IS could be placed on a network, it is primarily designed to be installed on an IBM PC compatible computer running Windows XP or Vista and will likely also run on Windows 95, 98, ME, and NT 2000. It should also remain compatible with future Windows versions. The six databases and their programs are installed in their respective directories on the computer's hard drive, while the images and photographs are accessed from the DVD. The DVD must remain in the drive while the programs are running. If the DVD is not in the computer's drive the user will be asked to insert it when they attempt to run one of the programs. It is the intention of this design that advanced statistical manipulation and analysis will be done in other programs, by importing a particular database directly (e.g. ODBC link – see Microsoft website or Microsoft Access manual for more information).

Requirements

Windows XP or Vista

128 MB RAM (512 MB recommended especially for newer operating systems),

VGA 1024 × 768 or higher for best viewing,

60 MB of hard drive space for program (images are accessed from the DVD),

DVD drive.

Installation

To install the TJ House programs, insert the DVD into the drive and run the 'TJ_House_Setup' file (double click on the file from Windows Explorer or click *start, run*, then go to the DVD drive and click *TJ_House_Setup*). This will begin the installation process. The program was not designed with an "auto-install" function because the DVD

needs to be inserted to allow the program access to the databases and the images. If the DVD had an auto-install function it would have to be cancelled from installing the program each time it was inserted into the drive. During the install process follow the instructions. Depending on what has been installed previously on the computer, the installation program may require rebooting of the computer. If the program finds installed components that are newer than those on the DVD it will not replace the newer existing files, if the files on the DVD are an updated version the program will update the existing ones.

The setup program will ask for the location where you wish the program to be installed on your hard drive (default c:\program files\TJ_House). The program will automatically create a program group called “*TJ House*” (see Figure 16.1a) and insert the six program icons that correspond to the six databases the artefact are contained within (Lamps, Pottery, Objects, Plaster, Glass and Field Photos). After installation, the program will search the computer for the DVD and access the images from the “*images*” subdirectory and the photographs from the “*photos*”. *Note*: depending on your computer setup, certain files may already be installed (registered) on your system. Thus, if you get an error box indicating a file cannot be registered, just continue the installation.

Along with the “*images*” and “*photos*” subdirectories, the DVD has a subdirectory named “*package*”. This subdirectory contains the “*TJ House*” programs, the associated databases, and the support files needed for installing and running the programs. Generally the user will not have



Figure 16.1a. Programs menu.

to interact with the files in the “*package*” directory. Additional files, such as the Locus Summary List is also on the DVD.

The Tj House Information System

The information system has a one-screen layout. From this screen (Figure 16.1a), access to images, searches, and printing is controlled. This interface allows for easy and quick access to the information in the database.

Main Menu

The main menu is located at the top left of the main screen (Fig. 16.1b) and has two major pull down submenus, labelled “*File*” and “*Copy to Clipboard*”.

The “*File*” submenu allows the user four options (Figure 16.2). The “*Print Page*” option produces a snapshot of the screen and outputs the image to the default printer. The user may want to change the default printer (From the Microsoft Windows *Start, Settings, Printer* menu) to direct the output to a specific location.

The “*Print Current Records*” allows the user to print all the current records as selected by the “*Record Control*” on the main screen. The records printed will in most cases be the result of a query and not the full database.

The “*Print Range*” allows the user to print a range of the current records (as selected by the “*Record Control*”). The “*Print Range*” menu has a handy feature that allows user to advance through the records and click on the “*Use Current*” button to enter the current record into the text box, rather than typing. Presently, the “*Print Range*” command does not update the pictures for each record when printing. Hence all the printouts will have the first image in the image box. If separate images are needed each page will have to be printed individually.

The “*Exit*” option exits the program. All query information will be lost and the Tall Jawa database closed.

The “*Copy to Clipboard*” submenu is designed to move information from this program to other programs such as word processors or spreadsheets, such as Microsoft Excel.

The “*Copy Page*” option allows users to copy all the textual information on the screen to the clipboard. The information stored on the

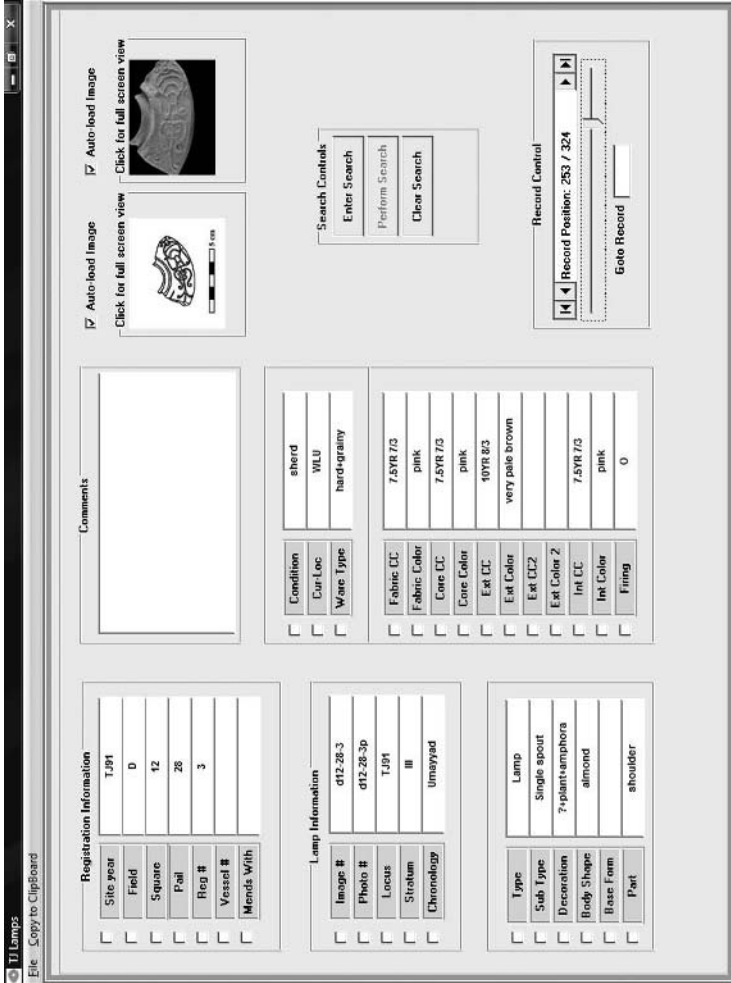


Figure 16.1b. Main screen of the Tj House information system.

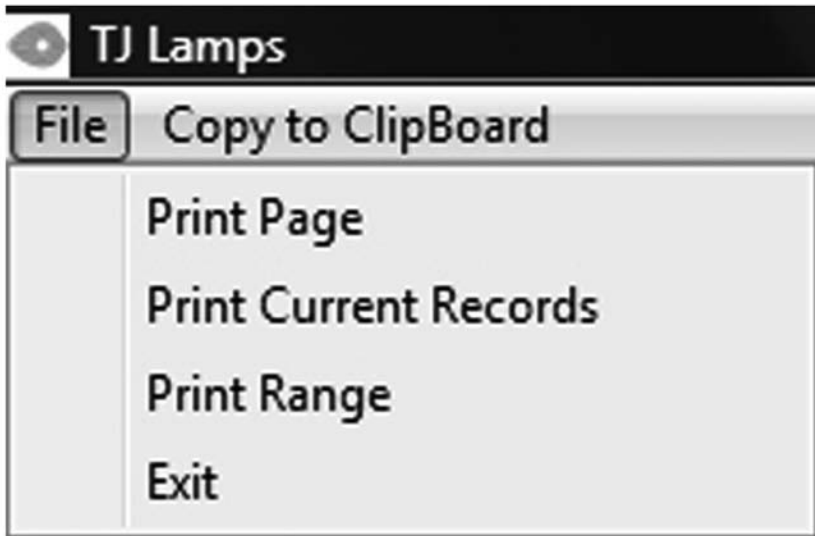


Figure 16.2. File submenu.

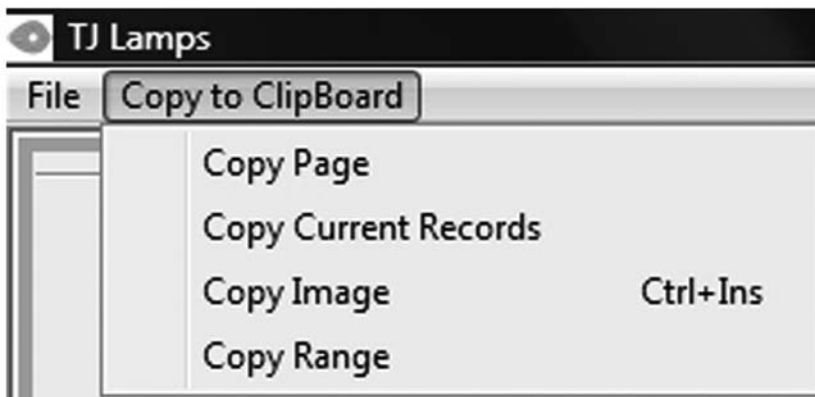


Figure 16.3. Copy to ClipBoard submenu.

clipboard will be formatted with the field name, separated by two tabs, and then the record information. For example:

Site year: TJ91

The information was formatted with two tabs so that it can be pasted neatly into a spreadsheet's columns or a word processor document. Note that the image is not copied.

The “*Copy Range*” option uses the same format as the “*Copy Page*,” and allows the user to copy a range (textual information) of the current records into another program for presentation or further analysis. The “*Copy Range*” menu has a handy feature that allows user to advance through the records and click on the “*Use Current*” button to enter the current record into the text box, rather than typing.

The “*Copy Current Records*” option uses the same format as the “*Copy Page*,” but copies all of the records currently selected by the “*Record Control*” object. This allows the user to copy the result of a query or all the records, into another program for presentation or further analysis.

The “*Copy Image*” option allows users to copy the current record’s image into other programs such as image editors and word processors. When the user selects copy image the image is transferred from the DVD to the Windows clipboard. It can then be pasted into other programs. Alternately, both images and photographs can be imported directly from the DVD into any program by locating the file on the DVD (the filename is presented as a field on the program screen).

Database Information

The database information system presents the fields in Appendix 1 for each record. The fields are divided into three sections; the registration information fields (1–7 upper left), object information fields (8–32), and the caption field. There are three elements for each field (see field example, Fig. 16.4).

On the left there is a check box, followed by the field name and the object’s data for the specific record. The check box allows the user to perform a search for similar information. By selecting the check box and clicking on the “*Perform Search*” button in the lower right, the program will search for information similar to that in the selected field. The user may select more than one check box to narrow a search. The program performs an “AND” search with the selected fields.



Figure 16.4. One field from the registration portion of the database.

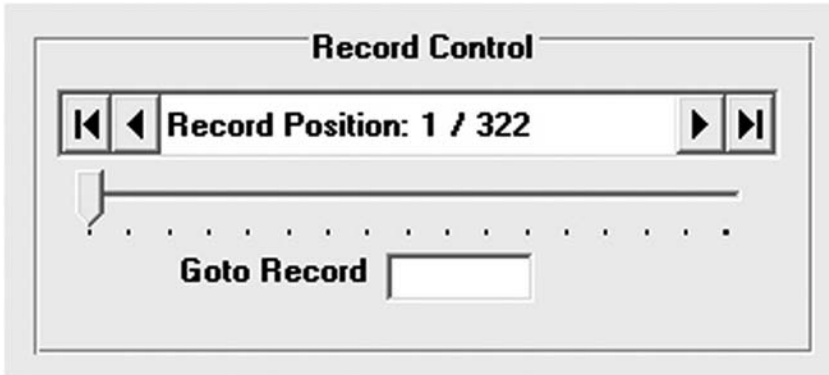


Figure 16.5. Record control object.

Record Control

The program uses a standard record control object to allow users to move through the records. The left and right arrows, allow you to move forward and backwards through the dataset. The bounded left and right arrows allow you to move to the beginning and end of the dataset. The central textual area labelled “*Record Control*” indicates the current record being used. A slider object is also available to allow the user to move to a point in the database quickly by moving the pointer left and right (left mouse click on the pointer and while holding the button down, drag the pointer left and right). The “*Goto Record*” box allows a user to move directly to any record in the database by typing in its record number. Alternately, if a user wants to view a specific artefact, they can click on the “*Enter Search*” button and type into the *Reg #* (registration number) box the number of the desired object and click “*Perform Search*” (see searching the database for further information).

The number of records will change if the user performs a search or loads a different database. In the case of a search, the text in the record control will reflect the number of records that match the search.

Artefact Images

With the popularity of the .jpeg format, it was decided to convert the images into this file type. The images were then stored at the highest resolution with virtually no loss. On the DVD all of the images and pho-

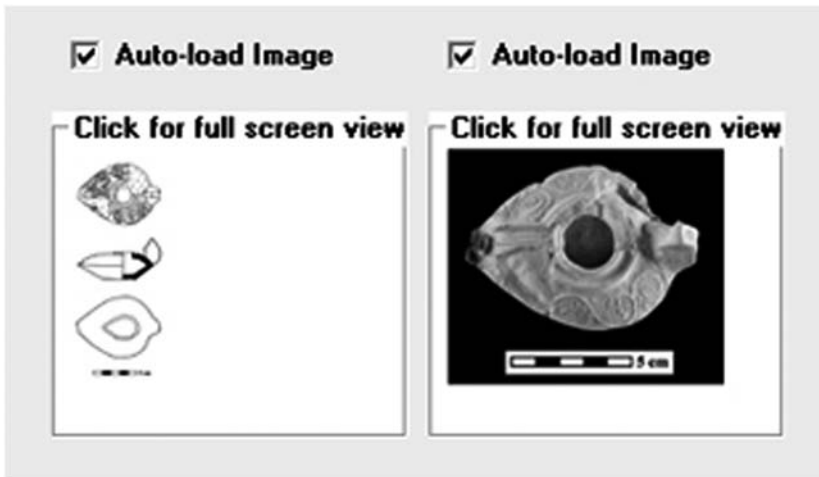


Figure 16.6. Artefact Image control objects.

tographs are located in the “\images” and “\photographs” directories in their corresponding program directories (e.g., under the “\Lamps” directory). For information on the numbering system for the images see the database field section in this chapter (Appendix 1).

The images and photographs were scanned at a maximum width \times height of 1024×768 pixels (24 bit colour), which matches the typical screen resolution of a VGA computer screen. A scale is placed on each image to give a perspective of image size. On the main screen two thumbnail images of each object (where image was available) can be seen in the upper right corner of the screen. On the left side is the drawn image of the artefact while on the right side is a photograph (if available) of the artefact. An “NA” appearing in either of the image boxes indicates that the particular image of the artefact is unavailable. In order to speed movement through the database on slower computers, the user can deselect the “*Auto-load picture*” check box, located above the thumbnail image. This will turn off the image display for future thumbnails. When the check box is deselected, a “*Show Image*” button will appear. This button allows the user to manually choose whether to view the thumbnail.

Full Image Preview: Either image can be seen in full screen mode simply by clicking on the thumbnail image. The image will be viewed in its full scale format at a maximum of 1024×768 pixels. If the image

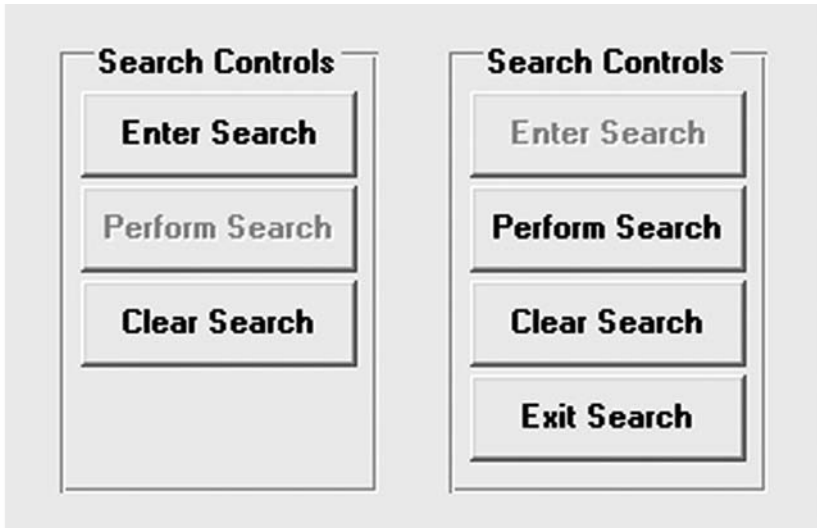


Figure 16.7. Search controls area.

resolution is greater than the screen size, scroll bars at the sides of the image, will appear to allow the user to scroll and view the image. To return to the main screen mode just click on the full screen image.

Searching the Database

Searching the database can be performed in two ways: simple searches for information that is similar to information in a particular field, and a complex user-defined search. The program uses an “AND” search for all multiple criteria searches.

Searches from the main screen allow the user to find information that is similar to that in a field(s) of the present record. This is done by simply clicking on the check box adjacent to the field and then clicking on the “*Perform Search*” in the search control area. Selecting the appropriate check boxes can search matches for more than one field. Note: the buttons in Fig. 16.7 will become available (visible) as needed.

A more powerful search facility can be activated by clicking on the “*Perform Search*” button in the search control area, or by clicking on the text box containing information for which the user wants to search. Activating the search screen brings up a second screen where the text boxes are yellow in colour. If this is the first time a search has been activated and the “*Perform Search*” button used, all the check boxes will

be cleared and the text boxes will be yellow. If the search was entered by clicking on a text box instead, the current field will appear in blue with the current record information already entered in the field and the associated check box checked. The user can click on this cell to enter information or click on the “*Perform Search*” button to find similar objects. If past searches have been performed, the search criterion information will be seen in blue in the text box. If you do not want to include these items in the present search, ensure that the unwanted check boxes are deselected. As information is entered into yellow text boxes, the box will change to blue and its check box activated. Once the search criteria have been entered, click on the “*Perform Search*” button and the program will return to the main screen with the number of matches reflected in the “*Record Control*” object. Now the user can view the subset of chosen records by using the “*Record Control*”.

After a search is completed, the “*Clear Search*” button will appear. Clicking on this button will reset all of the selected fields to their non-selected state thus returning the database to its original (all records browsable) state. This can also be accomplished by deselecting all of the check boxes that were involved in the search, and then clicking on the “*Perform Search*” button.

If a search is unsuccessful and no matching records are found, a message box will appear and a subsequent error box will be presented giving a technical definition of why the search failed. If a letter has been entered into a numeric field, an error indicating that too few parameters were entered will be seen (because in a numeric search all non-numeric information is stripped off).

The user may decide to exit the search without performing a search by pressing the “*Exit Search*” button. This will deselect all the check boxes and reset the database to its original state. The full database is now available for review.

Uninstalling the Program

As with other programs developed under the Microsoft Visual Development Suite, this program registers the information necessary to uninstall itself in the “*Windows Control Panel*” under the “*Add/Remove Programs*” utility. For each of the different versions of Windows the procedure is virtually identical. To uninstall the program (see Fig. 16.8) click on the “*Start*” icon, select “*Settings*”, and select “*Control Panel*”. The control panel will appear as seen in Figure 16.9.

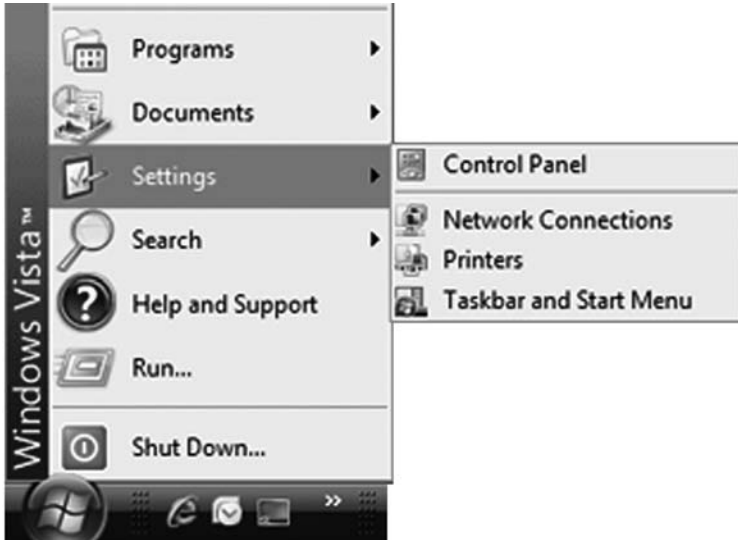


Figure 16.8. Accessing the Control Panel.

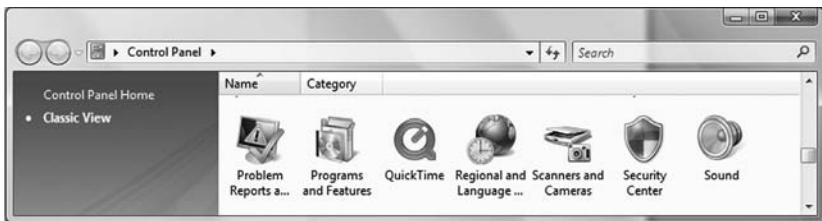


Figure 16.9. Accessing Add/Remove Programs.

From the control panel select “*Add/Remove Programs*”. The “*Add/Remove Programs*” in Windows XP or “*Programs and Features*” in Vista as seen in Figure 16.10. On the left side of the window the “*Change/Remove*” box (*Install/Uninstall* in Windows ME) must be selected (it usually is selected by default when the “*Change/Remove Program*” window loads). Select “*Tj House*” and click on the “*Change/Remove*” button (*Add/Remove* in Windows XP). In Vista the program is uninstalled by right mouse clicking on “*Tj House*” program name which brings up Uninstall/Change menu and selecting it. The user will be prompted to confirm that the program is to be removed and then finally clicks “*OK*” to complete the procedure.

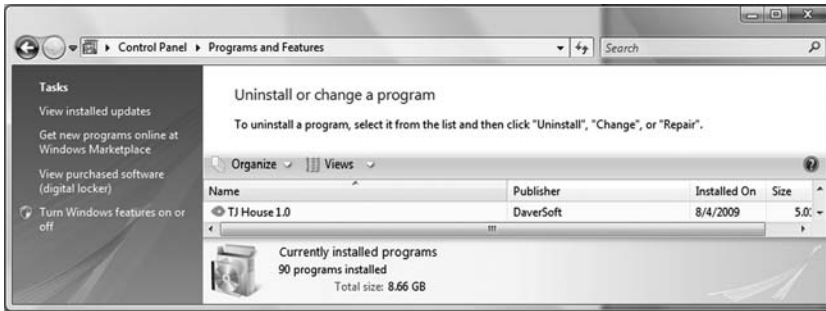


Figure 16.10. Removing the *Tj House* program.

It is hoped that the multimedia information system developed here will provide researchers with a powerful tool for accessing and investigating the artefacts unearthed at Tall Jawa. It is also hoped that other researchers will see the utility and produce similar systems to aid in dissemination of other archaeological findings. The authors can be contacted for further updates to the program or to report problems or suggestions for enhancements.

APPENDIX 1: DATABASE FIELD INFORMATION

Table 16A. List of Fields in each Record of the Lamps Database.

Field Name	Content
Site Year	Code for site (TJ) + year (91–95)
Field	Letter (A, B, C, D or E)
Square	Number
Pail	Number
Reg #	Number within a given pail
Vessel #	Number assigned to mended sherds and vessels
Mends with	Registration number of next mendable sherd
Image #	Number of drawing
Photo #	Number of photograph
Locus	Number of locus
Stratum	Roman Numeral
Chronology	Byzantine, Byz-Umay, Umayyad (style)

(Table 16A continued on next page)

Table 16A (*cont.*)

Field Name	Content
Type	Lamp, Jarash, Channel nozzle, or Candlestick
Sub-type	Single Spout, Double spout, Triple spout, Multiple spouts
Decoration	Design on shoulder
Body Shape	As far as can be determined (almond, circular, elongated, slipper)
Base Form	Ring, ridge, flat
Part	Portions preserved
Condition	Sherd, Broken, Complete, Intact
Cur-Loc	WLU, 'Amman (Department of Antiquities)
Ware type	Crisp, crumbly, coarse, firm, flaky
Fabric Ccode	Exterior colour code (Munsell)
Fabric Color	Exterior colour code name
Core Ccode	Exterior colour code (Munsell)
Core Color	Exterior colour code name
Ext Ccode	Exterior colour code (Munsell)
Ext Color	Exterior colour code name
Ext Ccode2	Exterior colour code (Munsell)
Ext Color2	Exterior colour code name
Int Ccode	Interior colour code (Munsell)
Int Color	Interior colour code name
Int Ccode2	Interior colour code (Munsell)
Int Color2	Interior colour code name
Firing	Oxidized, vitrified, or underfired
Comments	Additional information; Object numbers, special features

Table 16B. List of Fields in each Record of the Pottery Database.

Field Name	Content
Site Year	Code for site (TJ) + year (89, 91–95)
Field	Letter (A, B, C, D or E)
Square	Number
Pail	Number
Reg #	Number within a given pail
Vessel #	Number assigned to mended sherds and vessels
Mends with	Registration number of next mendable sherd

(Table 16B continued on next page)

Table 16B (*cont.*)

Field Name	Content
Image #	Number of drawing
Photo #	Number of photograph
Locus	Number of locus
Stratum	Roman Numeral
Chronology	Byzantine, Byz-Umay, Umayyad (style)
Class	Bowl, cup, krater, jar, jug, etc.
Lip profile	Shape of lip
Rim inflection	Stance of rim
Rim profile	Shape of rim
Body shape	Shape of vessel
Base form	Flat, rounded, omphalos, disc
Part	Amount of vessel preserved
Decoration	Type of decoration (slip, paint, combed)
Fext CC	Fabric Exterior colour code (Munsell)
Fext Color	Fabric Exterior colour code name
Core CC	Fabric Core colour code (Munsell)
Core Color	Fabric Core colour code name
Fint CC	Fabric Interior colour code (Munsell)
Fint Color	Fabric Interior colour code name
Ext CC	Exterior colour code (Munsell)
Ext Color	Exterior colour code name
Ext CC 2	Exterior colour code (Munsell)
Ext Color 2	Exterior colour code name
Int Ccode	Interior colour code (Munsell)
Int Color	Interior colour code name
Int Ccode 2	Interior colour code (Munsell)
Int Color 2	Interior colour code name
Dec CC 1	Paint 1 colour code (Munsell)
Dec Color 1	Paint 1 colour code name
Dec CC 2	Paint 2 colour code (Munsell)
Dec Color 2	Paint 2 colour code name
Firing	Oxidized, vitrified, or underfired
Condition	Sherd, broken (group of sherds)
Comments	Count of mended sherds, special features

Table 16C. List of Fields in each Record of the Glass Database.

Field Name	Content
Site Year	Code for site (TJ) + year (91–95)
Field	Letter (A–E)
Square	Number
Pail	Number
Sample #	Number within a given pail
Glass #	Number assigned to mended shards and vessels
Image #	Number of drawing
Photo #	Number of photograph
Locus	Number of locus
Stratum	Roman Numeral
Chronology	Byzantine or Umayyad attribution
Class	Vessel category
Type	Vessel type
Shape	Part preserved
Primary CC	Color code (Munsell)
Primary Color	Color code name
Condition	Sherd, Broken, Complete, Intact
Cur-Loc	WLU, 'Amman (Department of Antiquities)
Comments	Additional information; Object numbers, special features

Table 16D. List of Fields in each Record of the Plaster Database.

Field Name	Content
Site Year	Code for site (TJ) + year (89, 91–95)
Field	Letter (A, B, C, D or E)
Square	Number
Pail	Number
Reg #	Number within a given pail
Sequence #	Number assigned to mended plaster fragments
Mends with	Registration number of mendable fragments
Photo #	Number of photograph
Locus	Number of locus
Stratum	Roman Numeral
Chronology	Byzantine, Byz-Umay, Umayyad
Decoration	Type of decoration
Thickness	Thickness of fragment including underplaster layers
Weight	Weight of each fragment

(Table 16D continued on next page)

Table 16D (*cont.*)

Field Name	Content
Under 1 CC	Colour code (Munsell) of first under plaster
Under 1 Color	Colour code name of first under plaster
Under 2 CC	Colour code (Munsell)
Under 2 Color	Colour code name
Under 3 CC	Colour code (Munsell)
Under 3 Color	Colour code name
Bkgd CC	Background colour code (Munsell)
Bkgd Color	Background colour code name
Dec 1 CC	Decoration 1 colour code (Munsell)
Dec 1 Color	Decoration 1 colour code name
Dec 2 CC	Decoration 2 colour code (Munsell)
Dec 2 Color	Decoration 2 colour code name
Dec 3 CC	Decoration 3 colour code (Munsell)
Dec 3 Color	Decoration 3 colour code name
Comments	Additional information and special features

Table 16E. List of Fields in each Record of the Objects Database.

Field Name	Content
Site Year	Code for site (TJ) + year (91–95)
Field	Letter (A–E)
Square	Number
Pail	Number
Reg #	Number within a given pail
Image #	Number of drawing/photo
Locus	Number of locus
Stratum	Roman numeral
Chronol	Chronological period, Byzantine or Umayyad
Class	Architecture, jewellery, roof tile, etc.
Type	Object type
Function	Use, purpose, etc.
Material	Glass, ceramic, stone, etc.
Length	Maximum preserved size
Width	Second preserved size
Height	Standing height or thickness
Ext_dia	Exterior diameter of circular objects
Int_dia	Interior or second exterior diameter
Depth	Depth of depression

(Table 16E continued on next page)

Table 16E (*cont.*)

Field Name	Content
Ext_ccode	Exterior colour code (munsell)
Ext_color	Exterior colour code name
Int_ccode	Interior colour code (munsell)
Int_color	Interior colour code name
Condition	Broken, Chipped, Fragment, Complete
Cur-loc	WLU, 'Amman (Department of Antiquities)
Comments	Special features, additional colours

Table 16F. List of Fields in each Record of the Field Photos Database.

Field Name	Content
Site Year	Code for site (IJ) + year (91–95)
Field	Letter (A–E)
Square	Number
Photo #	Number of drawing/photo
Chronol	Chronological period, Byzantine or Umayyad
Category	Discovery, Excavation, General, Building, Plan, Section, etc.
Building	Building number
Room	Room number
Feature	Burial, cistern, installation, find, etc.
Caption	Description of image

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